Full copy of PA/VSI Report for Wacker

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January 31, 2001

Mr. Thomas Manning
U.S. Environmental Protection Agency
Region 5, DW-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

Reference: EPA Contract No. 68-W-99-017; Work Assignment No. R05704; Multi-Site Technical Document Review (Environment Priorities Initiative (EPI) Assessments-Task 04); Wacker Silicones Corporation, Adrian, Michigan; EPA ID No. MID075400671; Preliminary Assessment/Visual Site Inspection Report and NCAPS Scoring Report; Task 04 Deliverable

Dear Mr. Manning:

Please find enclosed the Preliminary Assessment/Visual Site Inspection (PA/VSI) Report and the NCAPS Scoring Report for the above referenced facility.

As can be seen by the NCAPS Report, the total migration score is 43.21, with media-specific scores of 76.92 for groundwater, 37.32 for surface water and 6.00 for onsite. These scores appear to be reflective of current site conditions.

Should you have any questions or require additional information, please feel free to contact me at 312/345-8938 or Mike Powers at 312/345-8941.

Sincerely,

John Koehnen
Regional Manager

cc: F. Norling, EPA Region 5, w/o attachments
W. Jordan, Central Files
Chicago Central Files
G. Phillips, EPA Region 5
M. Powers

PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION REPORT
FOR
WACKER SILICONES CORPORATION
3301 SUTTON ROAD
ADRIAN, MICHIGAN
EPA ID NO. MID 075400671

Submitted to:

Mr. Gerald Phillips
U.S. Environmental Protection Agency
Region 5 D-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

Submitted by:

TechLaw, Inc.
20 North Wacker Drive, Suite 1260
Chicago, Illinois 60606

EPA Work Assignment No.	**R05704**
Contract No.	**68-W-99-017**
TechLaw WAM	**Mr. John Koehnen**
Telephone No.	**312/345-8938**
EPA WAM	**Mr. Thomas Manning**
Telephone No.	**312/886-6943**
EPA TA	**Mr. Gerald Phillips**
Telephone No.	**312/886-0977**

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PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION REPORT
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3301 SUTTON ROAD
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I. EXECUTIVE SUMMARY

The RCRA Facility Assessment (RFA) is the first step in implementing the corrective actions provision of the 1984 Hazardous and Solid Waste Amendment (HSWA) to the Resource Conservation and Recovery Act (RCRA). The purpose of the RFA is to identify environmental releases or potential releases from solid waste management units (SWMUs) and areas of concern (AOCs) that may require corrective action by the facility owner. The PA/VSI is a form of an RFA and is suitable for implementing corrective action provisions of the HSWA. This PA/VSI report constitutes the reporting requirement for the RFA at the Wacker Silicones Corporation.

A preliminary assessment (PA) of the available U.S. Environmental Protection Agency (U.S. EPA) and State of Michigan file materials was conducted to familiarize the TechLaw, Inc. (TechLaw) Team with past compliance history, evidence of past releases, potential migration pathways, potential for exposure to any released hazardous constituents, closure methods and dates, citizen complaints, manufacturing processes and waste management practices at the Wacker Silicones Corporation (Wacker) facility. A Visual Site Inspection (VSI) was conducted on December 19, 2000, by TechLaw field personnel to locate, observe, and identify SWMUs and AOCs. Photographs were taken during the VSI and are attached in Appendix A. The VSI Field Notebooks are included in Appendix B, and a site map showing the 22 SWMU locations is presented in Appendix C.

A total of 22 SWMUs were identified during the PA/VSI. These are described in more detail in Section III of this report. One of these units, the Drum Burial Area (SWMU 21) was used for the improper disposal of approximately 85, 55-gallon drums of chlorisilane (comprised of silicon and hydrogen, used in the rubber and similar materials). Wacker removed the drums and contaminated soils and installed a clay cap over a 4-acre area in 1984. Though formal closure of this unit was approved by the Michigan Department of Natural Resources (MDNR) in 1984, a June 30, 1999 Hydrogeologic Investigation Report (Reference No. 26) indicates the presence of PCE and TCE in groundwater at concentrations exceeding 15,000 parts per million (ppm). Based on available file material and information obtained during the VSI, it is unclear if additional activities are being evaluated in response to groundwater investigation results.

II. SITE DESCRIPTION

Wacker Silicones Corporation (Wacker) was established in 1965, under the name of Stauffer-Wacker Silicones Corporation. The Wacker facility encompasses approximately 280 acres of land and is located in Adrian, Lenawee County, Michigan. Twenty-five acres are currently in use. The property is situated north of the River Raisin and west of the Norfolk and Western Railroad and is approximately 4.5 miles south of Tecumseh, Michigan. Refer to Figure 1: Facility Layout and SWMU Locations.

In May 1987, Wacker Chemical Corporation (the owner of 49% of Stauffer-Wacker Silicones Corporation) purchased Stauffer's portion of ownership and subsequently changed the name to Wacker Silicones Corporation. Wacker Chemical Corporation is currently owned by Wacker Chemie GmbH of West Germany.

Wacker is an active facility, which manufactures a variety of silicone products including fluids, sealants, antifoams, and rubbers. Wacker's product line includes several hundred different formulations of the above products, many of which are specialty chemicals for specific customers. The plant operates 24 hours per day, 7 days per week and employs approximately 415 employees.

A variety of processes are used at the facility including chemical reactions, distillation, hydrolysis, mixing and polymerization. Wacker manufacturing operations are divided into four basic manufacturing areas: the Polymer area produces various fluids and gums including silicone oils, solvent blends, and some plant intermediates, including alkaline fluid; the Hi-Bay area produces band ply-tubes, outside tire paints, antifoams, emulsifiers, and printing fluids along with plant intermediates for the polymers and Room Temperature Vulcanization (RTV) areas; the RTV area produces RTV compounds and silicone greases; and, the Heat-Curable Rubber (HCR) area produces rubber for automotive industry (spark plug wire boots, etc.) from fluid or gum bases mixed with various fumed silicas, fillers, and alkaline fluids. An HCR compound consists of a base plus a color additive and a catalyst which results in a solid. The resulting solid may be extruded to customer order.

Hazardous wastes are generated by tank cleaning, byproducts generations, spent solvents from production, laboratory solvents, off-specification products, and fume recovery.

The following wastes identified during the PA and confirmed during the VSI are generated as a result of general cleanup at Wacker for the various batch mixing tanks and reactors:

- Mixed Alcohol;
- Hydrocarbon (extremely flammable);
- Hydrocarbon (flammable);
- Hydrocarbon (combustible);
- Solvent;

- Mineral spirits; and,
- Polychlorohydrocarbon.

The following wastes are generated as by-products or wastes from various plant processes:

- Mixed Alcohol;
- Hydrocarbon (extremely flammable);
- ES-40 Lites;
- Cyclizer;
- SWS-960; and,
- HCR Vent.

The following wastes are generated from the Technical Center Laboratories:

- Flammable Waste (Tech Center);and,
- Non-combustible Waste (Tech Center).

Release History

A 1979 point source study prepared by the MDNR noted the existence of an unlined "black pond" (the former Evaporation Pond (SWMU 20)), which was used by Wacker for disposal of bad batches, floor washings, and reactor vessels washings. The amount reportedly disposed was approximately 30,000 gallons per month, since the beginning of operations at Wacker. Methyl chloroform (1,1,1-trichloroethane; TCA) was also detected in the pond and in the discharge from the outfall (Outfall 001). The NPDES permit did not, at that time, authorize the discharge of TCA.

In 1979, MDNR staff learned of the Drum Burial Area (SWMU 21) where Wacker employees had allegedly buried 100 drums. In 1984, Wacker (then SWS Silicones Corporation) uncovered, evaluated, and staged for removal approximately 85, 55-gallon drums of chlorisilane and approximately 140 cubic yards of contaminated soils. The drums were found in various stages of decomposition (conditions ranged from highly corroded, with only top and bottom rings, to some with very little apparent corrosion).

A 2000 hydrogeological evaluation, prepared by Atwell-Hicks, Inc., of groundwater contamination at the Wacker property and a proposed residential development (the Spohr property) at the southeast corner of Raisin Center Highway and Kopke Road, noted migration of groundwater contamination southeast toward the Raisin River and the proposed residential development. It should be noted that the hydrogeological evaluation was not sufficient to make a determination of the source or the extent of the contamination. Further, there is very little information available on migration of contamination beneath the river or the status of groundwater flow on the east side of the River Raisin.

No other releases were identified during the PA/VSI.

Environmental Setting

The site is bound by fencing on three sides and by the River Raisin to the south. A guard house is situated at the main entrance to the plant. The truck entrance gate (approximately 800 feet east of the main entrance) is remotely controlled by the guard at the main gate. Employees must show identification to obtain access; visitors must sign in and out. Woods and brush lie in the southern portion of the site immediately north of the River Raisin; farmsteads are located beyond the northern, eastern and southern borders of the site. Single family homes are located beyond the western boundary of the facility. The nearest residence is approximately 1,000 feet from the site property. There are approximately 26 drinking water wells at residences within 1,000 feet of the site property. There are no schools within 200 feet of the site. There are no other industries within 1,000 feet surrounding the site.

Soils consist of interbedded sands, silts, and clays of glacial origin. The upper soils were reworked several times and deposited as beaches and lacustrine sediments in a large lake in front of the receding ice. Repeated advances and retreats of the ice front produced a highly variable hydrogeologic environment. The upper soils on the upland are predominantly fine sands with varying amounts of silts.

According to the Michigan Water Resources Commission (Geology of River Raisin Basin, 1963), the River Raisin lies near the southeastern edge of an area known geologically as the Michigan Basin. The bedrock formations which underlie the glacial drift in the River Raisin basin span many years in geologic time from late Silurian to middle Missippian, and generally consist of sandstone, limestone and/or shale.

The glacial features of the River Raisin basin may be associated with the formation of the moraines or the glacial lakes. The glacial features consist of a heterogeneous mixture of sand, gravel, clay and silt. The thickness of the glacial features varies between 50 and 350 feet. The site is situated on rolling uplands adjacent to the valley of the River Raisin. The ground surface slopes gently to the southeast, from a topographic high of approximately 790 feet above MSL near the Research and Development Center, to an elevation below 730 feet above MSL, in the floodplain of the river. The center of the Drum Burial Area (SWMU 21) is approximately 1,500 feet southeast of the Research and Development Center and 500 feet northwest of the closest approach of the floodplain. Topographic relief across the upland is approximately 15 feet. An abrupt change in slope marks the edge of the upland.

Previous studies indicate that groundwater was encountered at approximately 33 to 35 feet below ground surface in the Drum Burial Area (SWMU 21). Based on the groundwater elevation, the groundwater flow direction in the former drum disposal area was determined to be toward the southeast, in the direction of the wetland area and Raisin River. The groundwater flow direction near the former was determined to be toward the south and southeast, also in the direction of the

wetlands and Pond (SWMU 20) the River Raisin.

Surface drainage is southeasterly toward the River Raisin. The average annual precipitation and snowfall are 32.90 inches and 30.50 inches, respectively. The 100 year floodplain elevation at the site is 721 feet above Mean Sea Level (MSL). The Wacker facility is located outside of the floodplain at an elevation of 748 feet above MSL.

Storm waters are generally collected and transported via a network of culverts, ditches and underground pipes, that connect to the Spill Prevention and Countermeasure Control (SPCC) Pond (SWMU 18). Process washwaters and hazardous storage tank runoff are collected in a similar network of culverts, ditches and underground pipes that go to the plant chemical sewer treatment system. All storm water is eventually discharged into the River Raisin via three outfalls:

1. Outfall 001 which transports process washwater from the API Tank and Chemical Sewer System (SWMU 14);
2. Outfall 002, which transports stormwater from the SPCC Pond (SWMU 18); and,
3. River Inlet, which transports water from the River Raisin into the pumphouse associated with the North and South Cooling Water Ponds (SWMUs 16 and 17, respectively).

Regulatory History

An NPDES Notice of Violation was issued by MDNR in February 5, 1980 for the unauthorized surface water and groundwater discharges of TCA. After a number of meetings and exchanges of correspondence, Wacker agreed to perform a Phase I Hydrogeologic Study in the area of the evaporation and settling pond.

In 1982, Stauffer-Wacker Silicones Corporation applied for a RCRA permit from U.S. EPA, Region 5. On September 10, 1984, that permit was issued. The permit covered storage of various hazardous wastes in containers on an unspecified storage pad (unable to determine which pad, SWMU 4 or SWMU 19), and in three aboveground storage tanks (AST), Tanks T-101, Tanks-105, and Tanks -108 (SWMUs 1, 2, and 3, respectively). Two RCRA violations were observed and indicated in a letter report on September, 25 1992. The violations included:

- Failure to relocate hazardous waste drums from Hi-Bay area to a secondary containment area within three days of generation; and,

- Discharging rainwater accumulated in the bulk storage tank secondary containment on to the ground without a discharge permit.

In response to the first violation, a response letter from Wacker indicated that they were experiencing forklift/equipment failure at the time of the inspection, which resulted in the delay of moving the drums. It should be noted that a notice of violation was not issued for these

violations.

Currently, Wacker maintains two air permits (Permits 158-97 and 597-81B) and an NPDES permit (issued August 2000). These documents were not available in files to review during the PA/VSI. There were no further history of releases discovered during the PA/VSI.

III. SOLID WASTE MANAGEMENT UNITS

A total of 22 Solid Waste Management Units (SWMUs) were identified during the PA and VSI. The SWMUs are listed in Table 1 on the following page.

This section presents descriptions of the SWMUs identified during the PA and VSI at the Wacker Silicones Corporation (formerly Stauffer-Wacker Silicones [SWS] Corporation) facility. Photograph numbers correspond to those presented in the Photograph Log in Appendix A. A map showing SWMU locations is presented in Appendix C.

TABLE 1

SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
WACKER SILICONES CORPORATION, ADRIAN, MICHIGAN

SWMU	SWMU	Release Potential
SWMU 1*	Tank T-101	Low
SWMU 2*	Tank T-105	Low
SWMU 3*	Tank T-108	Low
SWMU 4*	Hazardous Waste Pad	Low
SWMU 5*	Tank T-417	Moderate
SWMU 6*	Tank T-418	Moderate
SWMU 7*	Tank T-419	Moderate
SWMU 8*	Hi-Bay Sump	Moderate
SWMU 9*	RTV Sump	Moderate
SWMU 10	Tank T-126A	Moderate
SWMU 11	Tank T-126B	Moderate
SWMU 12	Tank T-127A	Moderate
SWMU 13	Tank T-127B	Moderate
SWMU 14	API Tank and Chemical Sewer System	Low
SWMU 15	Equalization Pond	Moderate
SWMU 16	North Cooling Water Pond	Low
SWMU 17	South Cooling Water Pond	Low
SWMU 18	Spill Prevention Control and Countermeasure Pond	Low
SWMU 19	RCRA Hazardous Waste Pad	Low
SWMU 20*	Evaporation Pond	High
SWMU 21*	Drum Burial Area	High
SWMU 22*	RX Bed Burial Area	High

* SWMUs 1 through 9 and 20 through 22 were reportedly no longer in operation at the time of the VSI.

SWMU 1 - Tank T-101

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: Tank T-101 was used intermittently from 1964 to1975 for the storage of methyl chloride, out of use from 1975 to 1980, and returned to use from 1980 to 1992 for RCRA hazardous waste storage. Tank T-101 was removed and closure was approved by MDNR in 1992.

Location: This unit was located immediately southwest of the RTV Building.

Physical Description: Tank T-101 was a 25,000 gallon steel horizontal above ground storage tank, utilized for the storage of spent 1,1,1-trichloroethane solvent waste generated from the Hi-Bay processing area. The T-101 storage tank was situated on a 28-foot (ft) by 64-ft concrete pad surrounded by a 3.5- to 4-ft tall reinforced concrete wall. The T-101 storage tank, oriented horizontally, was supported by two reinforced concrete saddles. Spent solvent was conveyed to the tank via drums and tote containers from the Hi-Bay process area.

No use of this unit occurred from 1975 to1980. This unit was physically removed from the Wacker facility in November 1992 and closure was approved by MDNR shortly thereafter. Sampling of tank contents was conducted at the time of the tank removal; no soil sampling was conducted.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: Spent 1,1,1-trichloroethane solvent wastes (F002) were generated from the Hi-Bay processing area (tank cleaning, spent production solvents, etc.) and were transported via drums and tote containers to Tank T-101. When reaching a volume of approximately 6,000 gallons, the accumulated waste was pumped to a tanker using an air-operated diaphragm pump and then transported to a licensed reclamation facility.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified for this unit during the PA/VSI and the closure of this unit was approved by MDNR, release potential is low.

SWMU 2 - Tank T-105

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: Tank T-105 was used intermittently from 1964 to1975 for the storage of toluene, out of use from 1975 to 1980, and returned to use from 1980 to 1992 for RCRA hazardous waste storage. Tank T-105 was removed and closure was approved by MDNR in 1993.

Location: This unit is located immediately south of the RTV Area Building, between former Tank T-101 and former Tank T-108 (SWMUs 1 and 3, respectively).

Physical Description: Tank T-105 was a 25,000 gallon steel vertical above ground storage tank, utilized for the storage of ignitable solvent waste such as naphthas, and cyclohexane generated from the Hi-Bay processing area. The T-105 storage tank was situated on a 32.5-ft by 62-ft concrete pad surrounded by a 4-ft high, 6-inch thick reinforced concrete wall. There was a 6-inch thick concrete wall separating Tank T-105 and Tank T-108. The portion of the reinforced concrete pad directly underneath the tanks was 8-inch thick. The remaining reinforced concrete pad area was 4 inches thick.

This unit was physically removed from the Wacker facility and closure was approved by MDNR in December 1993. Sampling of tank contents was conducted at the time of the tank removal; no soil sampling was conducted.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: Mixed ignitable solvent wastes (F003)were generated from the Hi-Bay processing area and were transported via drums and tote containers to Tank T-105. When reaching a volume of approximately 6,000 gallons, the accumulated waste was pumped to a tanker using an air-operated diaphragm pump and then transported to an incinerator or a licensed reclamation facility.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified for this unit during the PA/VSI and the closure of this unit was approved by MDNR, release potential is low.

SWMU 3 - Tank T-108

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: Tank T-108 was used intermittently from 1964 to1972 for the storage of ethanol, out of use from 1972 to 1980, and returned to use from 1980 to 1992 for RCRA hazardous waste storage. Tank T-108 was removed and closure was approved by MDNR in 1993.

Location: This unit was located immediately outdoors of the southeast corner of the RTV Area Building.

Physical Description: Tank T-108 was a 25,000 gallon steel vertical above ground storage tank, utilized for the storage of mineral spirits generated in the RTV processing area. Since this unit is no longer in operation and the current owners reportedly have no knowledge of previous operations, no further information concerning this unit is available. The T-108 storage tank was situated on a 32.5-ft by 62-ft reinforced concrete pad surrounded by a 4-ft high, 6-inch thick reinforced concrete wall. There was a 6-inch thick concrete wall separating the two tanks. The portion of the reinforced concrete pad directly underneath the tanks was 8 inches. The remaining reinforced concrete pad area was 4 inches thick.

This unit was physically removed from the Wacker facility and closure was approved by MDNR in December 1993. Sampling of tank contents was conducted at the time of the tank removal; no soil sampling was conducted. No further action of this unit is pending.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: Mineral Spirits (D001)were generated from the RTV processing area and were transported via drums and tote containers to Tank T-108. When reaching a volume of approximately 6,000 gallons, the accumulated waste was pumped to a tanker using an air-operated diaphragm pump and then transported to an incinerator or a licensed reclamation facility.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified for this unit during the PA/VSI and the closure of this unit was approved by MDNR, release potential is low.

SWMU 4 - Hazardous Waste Pad

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: The Hazardous Waste Storage Pad was used from 1965 to 1985 for the storage of hazardous wastes. According to the SWMU inventory notes dated May 1989, the pad was used for the storage of empty drums from 1985 to an undetermined date. Closure was approved by MDNR in February 1995.

Location: This unit was located in the west plant area, immediately southwest of the RTV building.

Physical Description: The Hazardous Waste Storage Pad was a 43-ft by 51-ft concrete pad. The reinforced concrete pad base was 8 inches thick and surrounded by a 3-ft tall containment wall on three sides. The fourth side was equipped with a sloped ramp for access. The maximum storage capacity for the pad was 400, 55-gallon drums. The unit was approved closed by MDNR in February 1995 and the former location has been covered with an asphalt parking lot.

Closure of this was approved by MDNR in February 1995. Soil sampling was conducted at the time of closure. Analytical results were not available in the Closure Report for review. No further action of this unit is pending.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: The Hazardous Waste Storage Pad was used to store hazardous drummed materials, though wastes were not specified in the file material or during the VSI. The RCRA Hazardous Waste Pad (SWMU 19) currently manages solvent wastes (F003) generated in the research laboratory. It is likely that wastes similar to those managed by SWMU 19 were also managed by this former unit. No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified for this unit during the PA/VSI and the closure of this unit was approved by MDNR, release potential is low.

SWMU 5 - Tank T-417

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as beginning in 1973. From 1973 through 1976, the tank was used for the storage of crude HCL. From 1980 through at least 1989, the tank was used for the storage and/or treatment of hazardous washwaters. According to facility representatives present during the VSI, this unit is no longer present. However, no closure report or other information was available to verify date of removal, sampling, nature and extent of potential contamination or further actions pending (if any).

Location: This unit was on the east side of the Hi-Bay Area Building.

Physical Description: Tank T-417 was a 20,000 gallon fiberglass reinforced plastic (FRP) tank, utilized for the storage of crude hydrochloric acid from 1973 through 1976, and the storage of washwaters from 1980 to some time after 1989.

Washwaters generated in the Hi-Bay process area were collected by the former Hi-Bay Sump (SWMU 8) and piped to Tank T-417. Washwater was then conveyed via piping to the API Tank and Chemical Sewer System (SWMU 14). However, information concerning the use or conveyance of the crude hydrochloric acid was not identified during the PA/VSI.

Robert Sullivan, of Wacker stated during the VSI that this unit is no longer operable and had been removed; No closure report was available to verify date of removal, sampling, contamination or further actions pending (if any).

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: T-417 was used to store crude hydrochloric acid and hazardous washwaters. No major spills or leaks have been reported. Since this unit is no longer in operation and the current owners reportedly have no knowledge of previous operations, no further information concerning this unit is available.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:

High	**( )**
Moderate	**(X)**
Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure

requirements was not available. Therefore, release potential for this unit is moderate.

SWMU 6 - Tank T-418

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as beginning in 1973. From 1973 through 1976, the tank was used for the storage of crude HCL. From 1980 through at least 1989, the tank was used for the storage and/or treatment of hazardous washwaters. According to facility representatives present during the VSI, this unit is no longer present. However, no closure report or other information was available to verify date of removal, sampling, nature and extent of potential contamination or further actions pending (if any).

Location: The location of this unit was immediately north of the Polymer Area and west of Former Tank T-419 (SWMU 7).

Physical Description: Tank T-418 was a 20,000 gallon fiberglass reinforced plastic (FRP) tank, utilized for the storage of crude hydrochloric acid from 1973 through 1976, and the storage of washwaters from 1980 to some time after 1989.

Washwaters generated in the Hi-Bay process area were collected by the former Hi-Bay Sump (SWMU 8) and piped to Tank T-418. Washwater was then conveyed via piping to the API Tank and Chemical Sewer System (SWMU 14). However, information concerning the use or conveyance of the crude hydrochloric acid was not identified during the PA/VSI.

Robert Sullivan, of Wacker stated during the VSI that this unit is no longer operable and had been removed; No closure report was available to verify date of removal, sampling, contamination or further actions pending (if any).

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: T-418 was used to store crude hydrochloric acid and hazardous washwaters generated in the Hi-Bay process area. No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:

High	**( )**
Moderate	**(X)**
Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure requirements was not available. Therefore, release potential for this unit is moderate.

SWMU 7 - Tank T-419

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as beginning in 1973. From 1973 through 1976, the tank was used for the storage of crude HCL. From 1980 through at least 1989, the tank was used for the storage and/or treatment of hazardous washwaters. According to facility representatives present during the VSI, this unit is no longer present. However, no closure report or other information was available to verify date of removal, sampling, nature and extent of potential contamination or further actions pending (if any).

Location: The location of this unit was immediately north of the Polymer Area Building and immediately east of Tank T-418 (SWMU 6).

Physical Description: Tank T-419 was a 20,000-gallon fiberglass reinforced plastic (FRP) tank, utilized for the storage of crude hydrochloric acid from 1973 through 1976, and the storage of washwaters from 1980 to some time after 1989.

Washwaters generated in the Hi-Bay process area were collected by the former RTV Sump (SWMU 8) and piped to Tank T-419. Washwater was then conveyed via piping to the API Tank and Chemical Sewer System (SWMU 14). However, information concerning the use or conveyance of the crude hydrochloric acid was not identified during the PA/VSI.

Robert Sullivan, of Wacker stated during the VSI that this unit is no longer operable and had been removed; No closure report was available to verify date of removal, sampling, contamination or further actions pending (if any).

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: T-419 was used to store crude hydrochloric acid and hazardous washwaters generated by the Hi-Bay process area. No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:

High	**( )**
Moderate	**(X)**
Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure requirements was not available. Therefore, release potential for this unit is moderate.

SWMU 8 - Hi-Bay Sump

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as being 1980 to 1989. Facility representatives present during the VSI indicated that this unit has since been closed in place by facility employees. However, no closure report or other information was available to verify date of removal, sampling, nature and extent of potential contamination or further actions pending (if any).

Location: This unit was located in the northeast corner of the manufacturing building, within Hi-Bay Area.

Physical Description: The Hi-Bay sump was a 500-gallon underground concrete sump used to collect hazardous washwater from the Hi-Bay process area. Washwater was then conveyed to Tanks T-417 and T-418 (SWMUs 5 and 6, respectively) via piping.

This unit was reportedly closed in place by Wacker facility employees in 1989. However, no closure report was available to verify date of removal, sampling, contamination or further actions pending (if any). Since the facility representatives present during the VSI reportedly have no knowledge of previous operations, no further information concerning this unit is available.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: The sump was used to collect washwater containing hazardous constituents from Hi-Bay process area. No major spills or leaks have been reported. Since this unit is no longer in operation and the facility representatives present during the VSI reportedly have no knowledge of previous operations, no further information concerning this unit is available.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:

High	( )
Moderate	(X)
Low	( )

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure requirements release potential for this unit is moderate.

SWMU 9 - RTV Sump

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as being 1979 to 1989.

Location: The location of this unit was in the southwest corner of the manufacturing building, within the RTV Area.

Physical Description: The RTV sump consisted of a carbon steel-constructed, 1,500-gallon underground sump. This sump received washwater generated in the RTV process area. Washwater was then conveyed to former Tank T-419 (SWMU 7) via piping.

This unit was reportedly closed in place by Wacker facility employees in 1989. However, no closure report was available to verify date of removal, sampling, contamination or further actions pending (if any).

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: The sump was used to collect washwater containing hazardous constituents from the RTV process area. No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**(X)**
	Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure requirements was not available. Therefore, release potential for this unit is moderate.

SWMU 10 - Tank T-126A

Photograph No(s).: No Photo (See Conclusion for explanation).

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as 1980.

Location: This unit is located in the southeast plant area, immediately north of the Equalization Pond (SWMU 15) and southwest of the Hi-Bay area building.

Physical Description: Tank T-126A is a 400,000-gallon vertical above ground storage tank, utilized for the storage of washwater generated from the RTV, Hi-Bay and Polymer production processes. Washwater is conveyed to this tank via piping which directly connects the above process units to the tank. In addition, this unit receives non-contact cooling water generated in the Polymer and Hi-Bay process areas. This unit operates in conjunction with Tank T-126B (SWMU 11); both tanks receive RTV and Hi-Bay process washwater. Washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). There are no containments are dikes around this tank.

Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Wastes Managed: T-126A has been used to store washwater from the RTV, Hi-Bay and Polymer production processes. Washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA. Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**(X)**
	Low	**( )**

Conclusions: A visual inspection was not conducted at this SWMU. At the time of the VSI, Wacker staff misinformed TechLaw field personnel as to the presence of Tank T-126A; the confusion occurred from the changing of an identification numbering system of the tanks at the facility. The current identification for Tank T-126A is TK006102. Since this unit was not located during the VSI, an evaluation of current conditions was not possible. Therefore, release potential is moderate.

SWMU 11 - Tank T-126B

Photograph No(s).: No Photo (See Conclusion for explanation).

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1980 to present date.

Location: This unit is located in the southeast portion of the Wacker facility, immediately northwest of Tank T-126A (SWMU 10) and southwest of the Hi-Bay Area Building.

Physical Description: Tank T-126B is a 400,000 gallon vertical above ground storage tank, utilized for the storage of washwater. Washwater is conveyed to this tank via piping which directly connects the process units to the tank. In addition, this unit receives non-contact cooling water generated in the Polymer and Hi-Bay process areas. This unit operates in conjunction with Tank T-126A (SWMU 10); both tanks receive RTV and Hi-Bay process washwater. Washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). There are no containments are dikes around this tank.

Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Wastes Managed: Tank T-126B has been used to store washwater from the RTV, Hi-Bay and Polymer production processes. No major spills or leaks have been reported.

History of Releases: None identified during the PA. Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**(X)**
	Low	**( )**

Conclusions: A visual inspection was not conducted at this SWMU. At the time of the VSI, Wacker staff misinformed TechLaw field personnel as to the presence of Tank T-126B; the confusion occurred from the changing of identification numbering system of the tanks at the facility. The current identification for Tank T-126B is TK006101. Since this unit was not located during the VSI, an evaluation of current conditions was not possible. Therefore, release potential is moderate.

SWMU 12 - Tank T-127A

Photograph No(s).: No Photo (See Conclusion for explanation).

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1980 to present date.

Location: This unit is located in the southeast portion of the plant (just north of the Equalization Pond (SWMU 15)) and within the Green Tank Building.

Physical Description: Tank T-127A is a 4,000 gallon American Petroleum Institute (API) tank, utilized for the storage of washwater generated by the RTV, Hi-Bay and Polymer production processes and non-contact cooling water generated in the Polymer and Hi-Bay process areas. The tank is supported by a five ft deep ring-wall foundations, three inches of clay and six inches of oil-impregnated-sand.

According to facility representatives present during the VSI, this unit was not in operation. Tanks T-127A and T-127B (SWMU 13) are currently used only to support capacity exceedances from Tanks T-126A and B (SWMUs 10 and 11, respectively). In the event of a capacity exceedance, this tank would receive washwater from the Hi-Bay and Polymer production processes.

Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Wastes Managed: Tank T-127A has been used to store washwater from the RTV, Hi-Bay and Polymer production processes. Washwater is conveyed to this tank via piping which directly connects the process units to the tank. In addition, this unit receives non-contact cooling water generated in the Polymer and Hi-Bay process areas. This unit operates only in times of capacity exceedances from Tanks T-127A and T-127B (SWMUs 10 and 11, respectively). During periods of operation, washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA. Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Potential for Past/Present Release:		
	High	( )
	Moderate	(X)
	Low	( )

Conclusions: A visual inspection was not conducted at this SWMU. At the time of the VSI, Wacker staff misinformed TechLaw field personnel as to the presence of Tank T-127A; the confusion occurred from the changing of identification numbering system of the tanks at the facility. The current identification of Tank T-127A is TK011102. Since this unit was not located

during the VSI, an evaluation of current conditions was not possible. Therefore, release potential is moderate.

SWMU 13 - Tank T-127B

Photograph No(s).: No Photo (See Conclusion for explanation).

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1980 to present date.

Location: This unit is located in the southeast portion of the Wacker facility (just north of the Equalization Pond (SWMU 15) and south of Tank T-127A (SWMU 12)), within the Green Tank Building.

Physical Description: Tank T-127B is a 4,000-gallon fiberglass reinforced plastic (FRP) tank, utilized for the treatment of chemical waste. The tank is supported by a 5-ft deep ring-wall foundation, three inches of clay and six inches of oil-impregnated sand.

According to facility representatives present during the VSI, this unit was not in operation. Tanks T-127A (SWMU 12) and T-127B are currently used only to support capacity exceedances from Tanks T-126A and B (SWMUs 10 and 11, respectively). In the event of a capacity exceedance, this tank would receive washwater from the Hi-Bay and Polymer production processes.

Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Wastes Managed: Tank T-127B has been used to store washwater from the RTV, Hi-Bay and Polymer process areas. Washwater is conveyed to this tank via piping which directly connects the process units to the tank. In addition, this unit receives non-contact cooling water generated in the Polymer and Hi-Bay process areas. This unit operates in conjunction with Tank T-127A (SWMU 12); both tanks have the potential to receive RTV, Hi-Bay and Polymer washwater and/or cooling water in the event of a capacity exceedance in the Tank T-126A (SWMU 10) and Tank T-126B (SWMU 11) system. During periods of operation, washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA. Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**(X)**
	Low	**( )**

Conclusions: A visual inspection was not conducted at this SWMU. At the time of the VSI, Wacker staff misinformed TechLaw field personnel as to the presence of Tank T-127B. The

confusion occurred from the changing of the identification numbering system of the tanks at the facility. The current identification of Tank T-127B is TK010102. Since this unit was not located during the VSI, an evaluation of current conditions was not possible. Therefore, release potential is moderate.

SWMU 14 - API Tank and Chemical Sewer System

Photograph No(s).: R1P6 and R1P7

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as beginning in 1965 to present date.

Location: This API Tank is located in the south portion of the Wacker facility, between the SPCC Pond (SWMU 18) and the Equalization Pond (SWMU 15). The Chemical Sewer is present throughout the facility.

Physical Description:
The American Petroleum Institute (API) Tank is comprised of two main components; the API Tank and the Chemical Sewer System. The API tank is constructed of concrete and contains an oil-skimmer system. The API Tank has been used to store oil-contaminated water received from Tanks T-126A and B (SWMUs 10 and 11, respectively), and Tanks T-127A and B (SWMUs 12 and 13, respectively). The API Tank has a capacity of 16,000 gallons and is associated with the chemical sewer which manages approximately 45 million gallons per year, which eventually discharges from Outfall 001. No major spills or leaks have been reported.

The chemical sewer portion of the system is comprised of a network of culverts, ditches and underground pipes. Washwaters from various process units are conveyed via piping to the API Tank, while non-contact cooling waters initially pass through the North and South Cooling Water Ponds (SWMUs 16 and 17, respectively).

Wastes Managed: The API Tank manages oil-contaminated washwater from the RTV, Hi-Bay and Polymer processes. Oil produced by the oil-skimmer is removed to a tank truck (recycler-owned) for transport to an approved recycler. Resulting washwater is then discharged from Outfall 001.

History of Releases: None identified during the PA/VSI.

Potential for Past/present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no evidence of releases were identified during the PA/VSI, release potential for this unit is low.

SWMU 15 - Equalization Pond

Photograph No(s).: R1P10

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1975 to present date.

Location: The location of this unit is in the south portion of the Wacker facility (just west of the North and South Cooling Ponds (SWMU's 16 and 17, respectively).

Physical Description: The Equalization Pond was formerly a part of the plant chemical sewer system (a component of SWMU 14), though is now used as a reservoir for fire-fighting purposes. The pond likely received washwater from the RTV, Hi-Bay, Polymer and/or HCR processes. Four aerators, located in the northern half of the pond, were likely used as a form of wastewater pretreatment. Following aeration, the washwater was likely handled by the API Tank and Chemical Sewer System (SWMU 14). The Equalization Pond has a capacity of 2.5 million gallons and is now used to store water to be used in the event of a fire. No major spills or leaks have been reported.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: The Equalization Pond was originally used to store washwater from the chemical sewer system, potentially received from the RTV, Hi-Bay, Polymer and/or HCR processes. Currently, it is being used as a water source to be used in the event of a facility fire.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**(X)**
	Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, it is recommended that this unit be further evaluated to determine if releases have occurred. Therefore, the release potential is moderate.

SWMU 16 - North Cooling Water Pond

Photograph No(s).: R1P11

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1965 to present date.

Location: This unit is located in the southeast portion of the Wacker facility (just east of the Equalization Pond (SWMU 15) and north of the South Cooling Water Pond (SWMU 17).

Physical Description: The North Cooling Water Pond is a 120 feet by 65 feet tar paper and asphalt- lined non-contact cooling water pond with a capacity of 750,000 gallons. Cooling water is received from the Polymer process area, allowed to cool, and the then conveyed to the API Tank (component of SWMU 14).

Wastes Managed: This unit manages non-contact cooling water generated by the Polymer process. Following cooling, the water is managed by the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no evidence of release was identified during the PA/VSI, release potential for this unit is low.

SWMU 17 - South Cooling Water Pond

Photograph No(s).: R1P12

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1965 to present date.

Location: This unit is located in the southeast portion of the Wacker facility (just east of the Equalization Pond (SWMU 15) and south of the North Cooling Water Pond (SWMU 16).

Physical Description: The South Cooling Water Pond is a 120 feet by 65 feet tar paper and asphalt- lined non-contact cooling water pond with a capacity of 750,000 gallons.

Wastes Managed: This unit manages non-contact cooling water generated by the Polymer process. Following cooling, the water is managed by the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no evidence of release was identified during the PA/VSI, release potential for this unit is low.

SWMU 18 - Spill Prevention Control and Countermeasure (SPCC) Pond

Photograph No(s).: R1P4 and R1P5

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1975 to present date.

Location: The location of this unit is in the south of the plant (just west of the API Tank (SWMU 14) and east of RX Bed Burial Area (SWMU 22).

Physical Description: The Spill Prevention Control and Countermeasures (SPCC) Pond measures 100 ft by 250 ft and has a capacity of 750,000 gallons. As of 1989, the unit managed approximately 5 million gallons of stormwater per year. Stormwater collected from the entire facility enters this pond prior to being discharged from Outfall 002.

Wastes Managed: The SPCC Pond is used to retain stormwater run-off throughout the facility, which eventually discharges from Outfall 002.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified during the PA/VSI, release potential is low.

SWMU 19 - RCRA Hazardous Waste Pad

Photograph No(s).: R2P1 and R2P2

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1980 to present date.

Location: This unit is located immediately east of the Hi-Bay Area Building, near the southeast corner.

Physical Description: The RCRA pad consists of a 20-ft by 30-ft roof-covered, concrete pad. The reinforced concrete pad is 8-inches thick and is surrounded on three sides by a 3-ft reinforced concrete containment wall. The remaining side includes a sloped ramp to allow for access. The maximum storage capacity for the pad is 600, 55-gallon drums.

Wastes Managed: The RCRA pad has been used to store hazardous drummed raw materials (to be eventually used in Wacker's production process) and as a segregated, 90-day holding area for RCRA waste (F002 and F003) generated by the research laboratory. No major spills or leaks have been reported.

History of Releases: None identified in the file materials or during the VSI.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified during the PA/VSI, the release potential is low.

SWMU 20 - Evaporation Pond

Photograph No(s).: R1P13 and R1P14

Period of Operation: The period of operation of this unit was noted as being 1968 to 1982. This unit was physically removed from the Wacker facility. Sampling and the removal of contaminated soil has occurred at this unit; however, no closure report was available during the PA/VSI to verify date of removal, or further actions pending (if any).

Location: This unit was located in the southeast corner of the Wacker property, immediately southwest of Tank T-126A (SWMU 10) and north of the North Cooling Water Pond (SWMU 16).

Physical Description: The Evaporation Pond consisted of a 100-ft by 250-ft clay-lined pond which stored approximately 30,000 gallons per month of washwater containing methyl chloroform (TCA) and dilute hydrochloric acid. Sampling and the removal of contaminated soil in addition to the installation of a clay cap reportedly occurred at this unit in 1982.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: While the pond was in operation, TCA and hydrochloric acid were a constituents of the production washwaters. The evaporation pond was cleaned and capped in 1982. No closure report was available during the PA/VSI to verify date of this action, or further actions pending (if any).

History of Releases: A release was observed and noted in a letter dated September 16, 1980, involving the leaking of water into the perched groundwater system. Further, a 1979 point source study prepared by the MDNR noted the existence of this unit as an unlined "black pond" which was used by Wacker for disposal of bad batches, floor washings, and reactor vessels washings. The amount reportedly disposed was approximately 30,000 gallons per month, since the beginning of operations at Wacker. TCA was also detected in the pond and in the discharge from the outfall (Outfall 001). The NPDES permit did not, at that time, authorize the discharge of TCA.

Potential for Past/Present Release:		
	High	**(X)**
	Moderate	**( )**
	Low	**( )**

Conclusions: The Evaporation Pond has reportedly undergone closure activities and a clay cap has been installed. Since releases were identified during the PA, the release potential is high. However, since verification of closure approval was not available, the current release potential is moderate. In addition, due to inclimate weather (approximately thirty inches of snow), the

ground surface could not be observed to make an adequate determination as to the physical condition and release potential associated with this unit; however, since remedial activities appear to have been completed and no evidence of additional release were identified, the current release potential is moderate.

SWMU 21 - Drum Burial Area

Photograph No(s).: R1P1 and R1P2

Period of Operation: The period of operation of this unit was noted as being 1972 to 1984. This unit was physically removed from the Wacker facility. In 1984, formal closure of this unit was authorized by MDNR. Sampling and the removal of contaminated soil occurred at the time of closure. No further actions are pending.

Location: This unit was located in the southwest corner of the Wacker property, immediately north of the RX Bed Burial area (SWMU 22) and west of SPCC Pond (SWMU 18).

Physical Description: The Drum Burial Area was an unlined pit which measured 25 feet by 120 feet. In 1979, MDNR staff learned of an old "disposal area" on the plant site, where Wacker employees had allegedly buried 100 drums. In 1984, Wacker (then SWS Silicones Corporation) uncovered, evaluated, and staged for removal approximately 85, 55-gallon drums of chlorisilane and approximately 140 cubic yards of contaminated soils. The drums were found in various stages of decomposition (highly corroded with only top and bottom rings to some with very little apparent corrosion). Analytical data indicated an observed release and contamination of total chlorinated organics and trimethyl silanol.

The Drum Burial area, at present, is inactive and a 4-acre area associated with both this unit and the RX Bed Burial Area (SWMU 21) has been covered with a clay cap. Previous studies indicate that groundwater was encountered at approximately 33 to 35 feet below grade. Based on groundwater elevation, the groundwater flow direction in the former drum disposal area was determined to be toward the southeast, to the wetland area and River Raisin.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: This unit reportedly managed approximately 85, 55-gallon drums of chlorisilane.

History of Releases: In 1984, during removal activities, releases of total chlorinated organics and trimethyl silanol were identified. Results of a 1999 hydrogeologic investigation (Reference No. 26) indicated the presence of PCE and TCE at concentrations exceeding 15,000 ppm in groundwater.

Potential for Past/Present Release:		
	High	**(X)**
	Moderate	**( )**
	Low	**( )**

Conclusions: Since releases to both soil and groundwater have been identified, release potential

is high. While this contamination has been addressed in part, it is recommended that the results of the hydrogeologic investigation be evaluated to determine if additional remedial activities are necessary. In addition, due to inclimate weather (approximately thirty inches of snow), the ground surface could not be observed to make an adequate determination as to the physical condition and release potential associated with this unit; however, since remedial activities appear to have been completed and no evidence of additional release were identified, the current release potential is moderate.

SWMU 22 - RX Bed Burial Area

Photograph No(s).: R1P3

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as being 1970 to 1978. Sampling and the removal of contaminated soil has occurred at this unit. However, no closure report was available during the PA/VSI to verify date of sampling, the extent of contamination and further actions pending (if any).

Location: This unit was located in the southwestern corner of the Wacker property, immediately south of the Drum Burial (SWMU 21) and west of the SPCC Pond (SWMU 18)

Physical Description: The Reactor (RX) Bed Burial Area measured 200 ft by 300 ft and is associated with the 4-acre clay cap which also covers the Drum Burial Area (SWMU 21). Releases to soil of total chlorinated organics and trimethyl silanol have been identified.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: This unit reportedly received approximately 5,100 tons of non-hazardous lime sludge and spent reactor dumpings which appears to have been applied directly to the ground surface.

History of Releases: The X Bed Burial is associated with the 4-acre clay cap which also covers the Drum Burial Area (SWMU 21). Analytical data indicated an observed release of total chlorinated organics and trimethyl silanol.

Potential for Past/Present Release:		
	High	**(X)**
	Moderate	**( )**
	Low	**( )**

Conclusions: Releases to soil of total chlorinated organics and trimethyl silanol have been identified. The area, at present is inactive and covered with a clay cap. Due to inclimate weather (approximately thirty inches of snow), the ground surface could not be observed to make an adequate determination as to the physical condition and release potential associated with this unit; however, since remedial activities appear to have been completed and no evidence of additional release were identified, the current release potential is moderate.

IV. AREAS OF CONCERN

There were no Areas of Concern (AOCs) identified during the PA and VSI at the Wacker Silicones Corporation facility.

V. CONCLUSIONS

Based on observations made during the VSI and analytical results of groundwater sampling conducted at the Wacker facility, further investigations under RCRA Corrective Action Authorities may be warranted for some SWMUs. It is recommended that any further actions under Corrective Action Authorities described below be coordinated with any state or federal agency-approved plans.

Drum Burial Area (SWMU 21)

The Drum Burial Area (SWMU 21) was an unlined pit where approximately 85, 55-gallon drums of chlorisilane were disposed. The degradation of the drums eventually led to the contamination of both soil and, as indicated in a 1999 hydrogeologic investigation report (Reference No. 26), groundwater contamination (total chlorinated organics and trimethyl silanol). Decomposed drums and approximately 140 cubic yards of contaminated soils were removed in 1984 and a clay cap was installed over a 4-acre area, including the RX Bed Burial Area (SWMU 22).

Results of the 1999 hydrogeologic investigation (Reference No. 26) indicated the presence of PCE and TCE at concentrations exceeding 15,000 ppm in groundwater. While this contamination has been addressed in part with the installation of the clay cap, it is recommended that the results of the hydrogeologic investigation be evaluated to determine if additional remedial activities are necessary.

Tank T-417 (SWMU 5), Tank T-418 (SWMU 6), Tank T-419 (SWMU 7), Hi-Bay Sump (SWMU 8) and the RTV Sump (SWMU 9)

The above units have been identified as having a moderate release potential since documentation of closure activities was not present in the file material and was not provided by the facility. Therefore, it is recommended that additional efforts be made to determine if these units have received closure approval, where necessary, from appropriate authorities.

Tank T-126A (SWMU 10), Tank T-126B (SWMU 11), Tank T-127A (SWMU 12) and Tank T-127B (SWMU 13)

The above units were not inspected at the time of the VSI due to confusion relating to a revised tank identification system. Though no releases were identified during the PA or by facility representatives present during the VSI, it is recommended that these units be addressed during future inspections or by other means (comprehensive facility-provided photographs, etc.). Therefore, these units have been assigned a moderate release potential.

It should also be noted that due to inclement weather (approximately thirty inches of snow) encountered during the VSI, the ground surface at the former Evaporation Pond (SWMU 20), the former Drum Burial Area (SWMU 21) and the former RX Bed Burial Area (SWMU 22) could

not be observed to make an adequate determination as to the physical condition and potential recent releases. It is recommended that these units be addressed during future inspections or by other means (comprehensive facility-provided photographs, etc.). Therefore, these units have been assigned a moderate release potential.

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20. Michigan Department of Natural Resources; Letter to Robert Sullivan, Wacker Silicones Corporation; Closure Certification Notice of Deficiency; May 9, 1995.

21. Atwell-Hicks, Inc.; Washington, Michigan; Hydrogeological Investigation Report; June 30, 1999.

22. Wacker Silicones Corporation; Letter to Peter T. Mason, Michigan Department of Natural Resources; Re: Clean Closure for Wacker Silicones Wastewater Lagoon; dated August 17, 1999.

23. Michigan Department of Natural Resources; Letter to Robert Sullivan, Wacker Silicones Corporation; Re: Hydrogeological Investigation Report, Wacker Silicones Site, Adrian, Lenawee County; October 28, 1999.

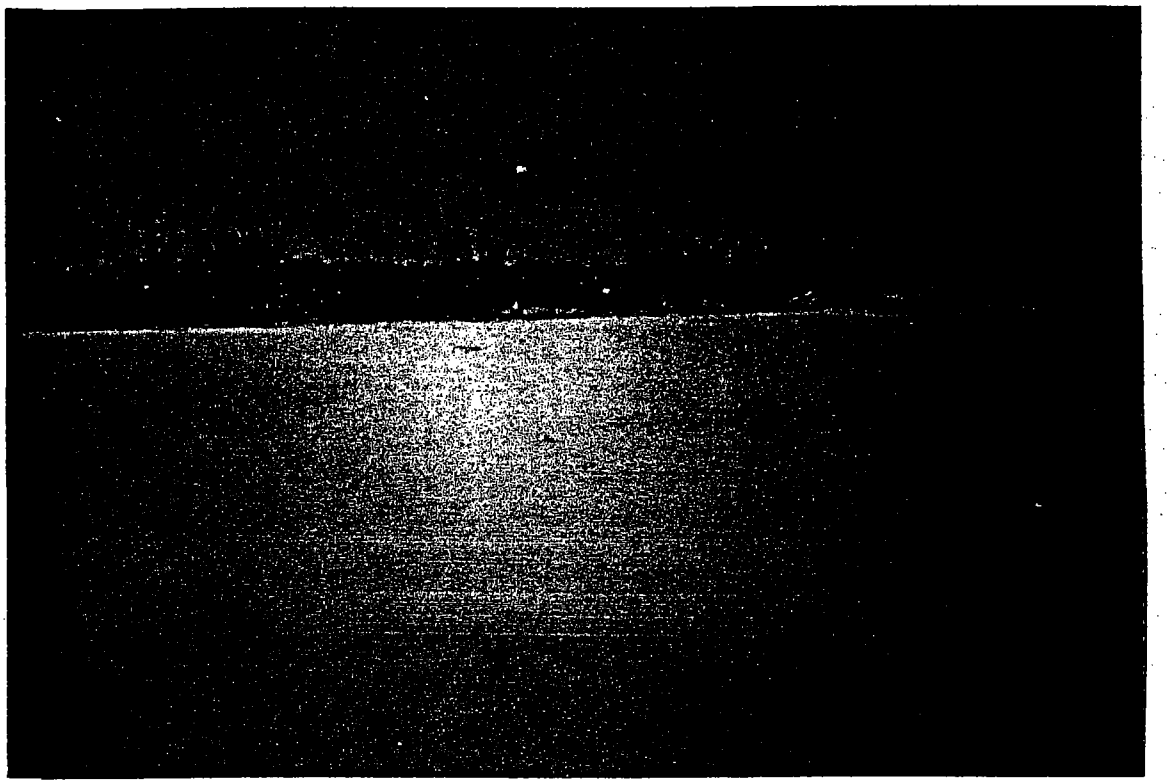
24. Michigan Department of Natural Resources, Lansing, Michigan; Memorandum From: Sara Bonette; To: Linn Duling; Re: Site Visit to the Wacker Silicones Corporation; March 8, 2000.

25. Michigan Department of Natural Resources, Lansing, Michigan; Letter to Michael Knight, Lenawee County Health Department; Re: Sophr Property, Raisin Township, Lenawee County; May 5, 2000.

26. Attwell-Hicks, Inc; Washington, Michigan; Hydrogeological Evaluation for a Residential Development at the Southeast Corner of Raisin Center Highway and Kopke Road; June 7, 2000.

27. Michigan Department of Natural Resources; Letter to Wacker NPDES Permit No. MI0026034; August 11, 2000.

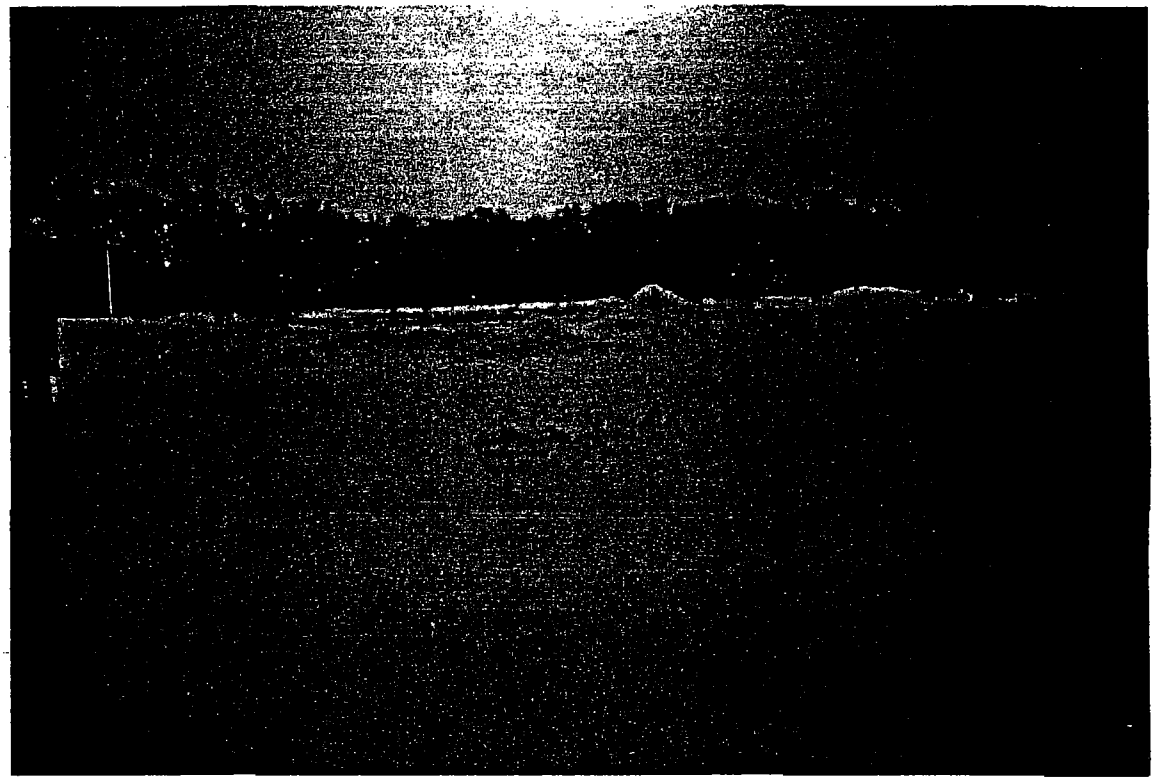
APPENDIX A
Visual Site Inspection Photograph Log



Photograph No.: R1P1
Date: 12/19/00

Time: 1043
Direction: South

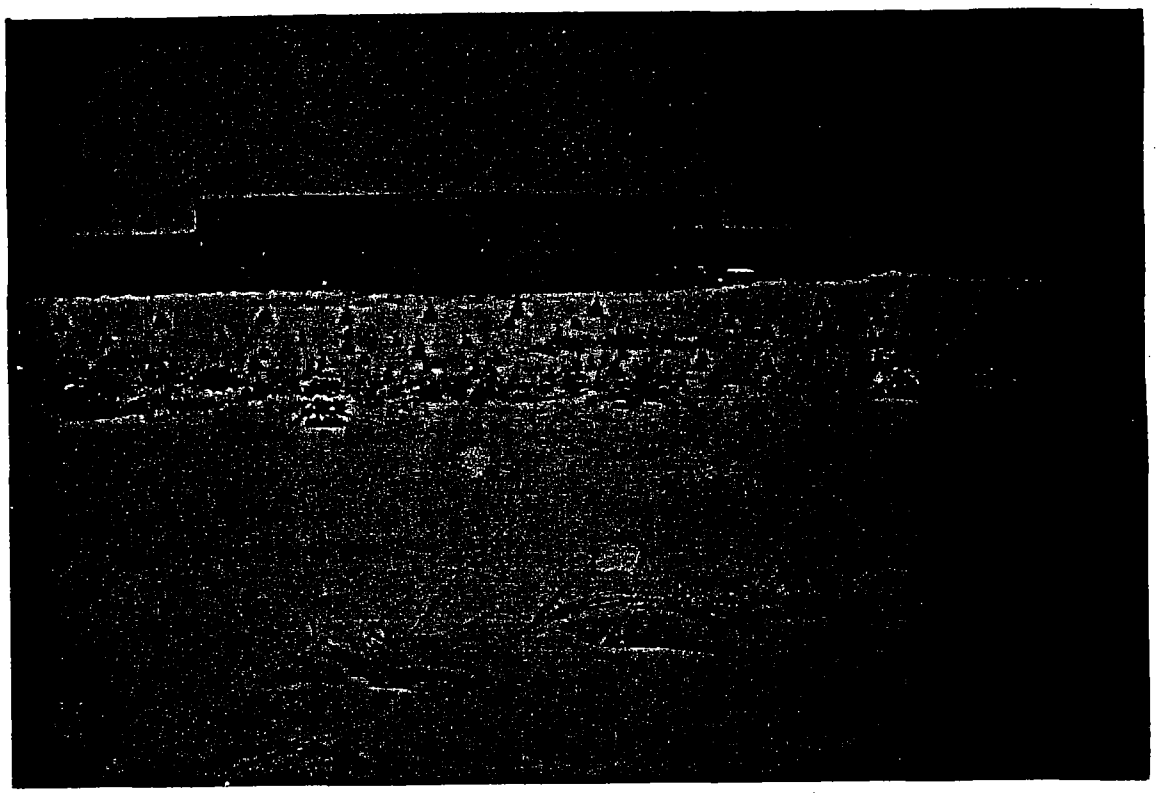
Description: View of the Drum Burial (SWMU 21).



Photograph No.: R1P2
Date: 12/19/00

Time: 1043
Direction: South

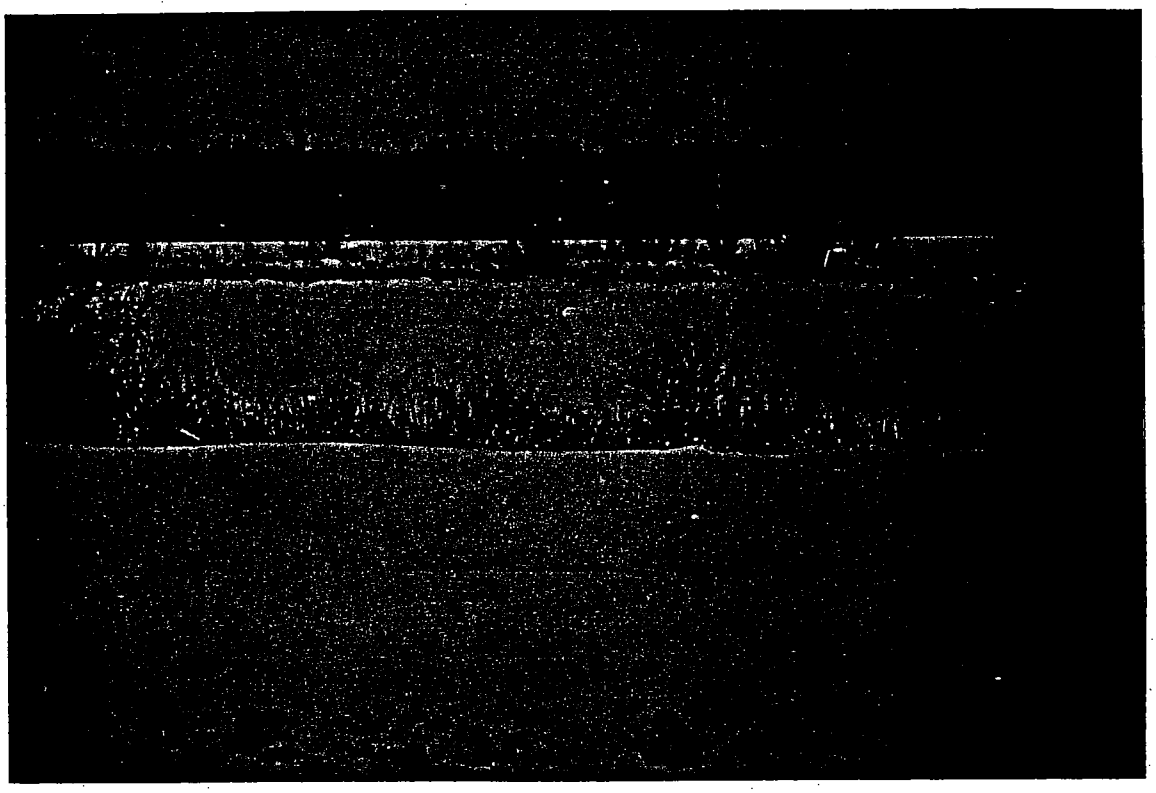
Description: Additional view of the Drum Burial (SWMU 21).



Photograph No.: R1P3
Date: 12/19/00

Time: 1050
Direction: North

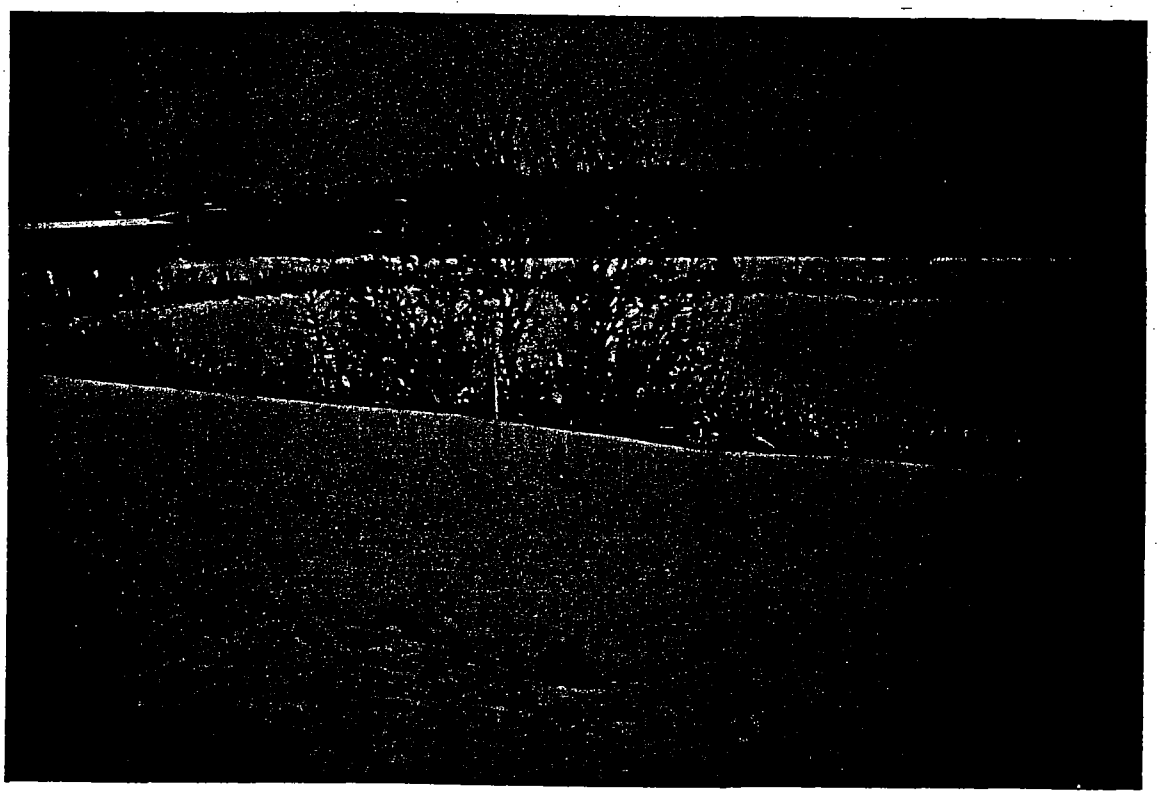
Description: View of the RX Bed Burial Area (SWMU 22).



Photograph No.: R1P4
Date: 12/19/00

Time: 1055
Direction: South

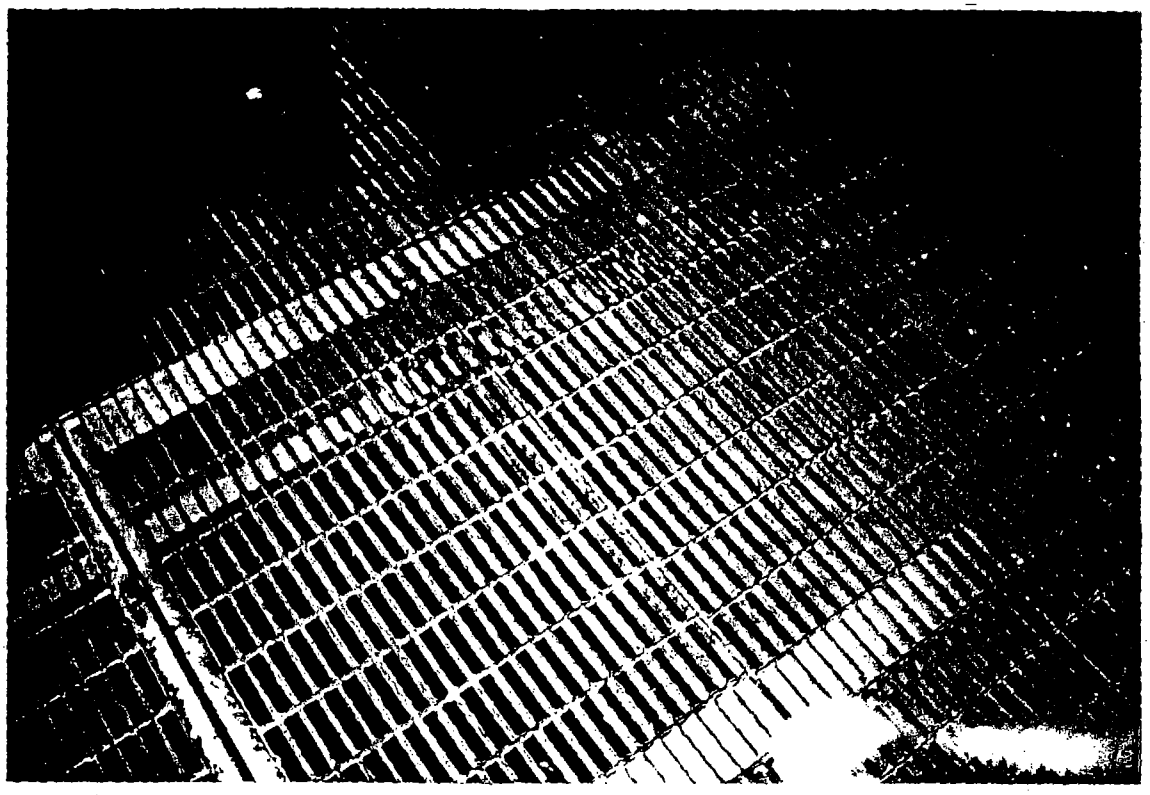
Description: View of the Spill Prevention Control and Countermeasure Pond (SWMU 18).



Photograph No.: R1P5
Date: 12/19/00

Time: 1055
Direction: South

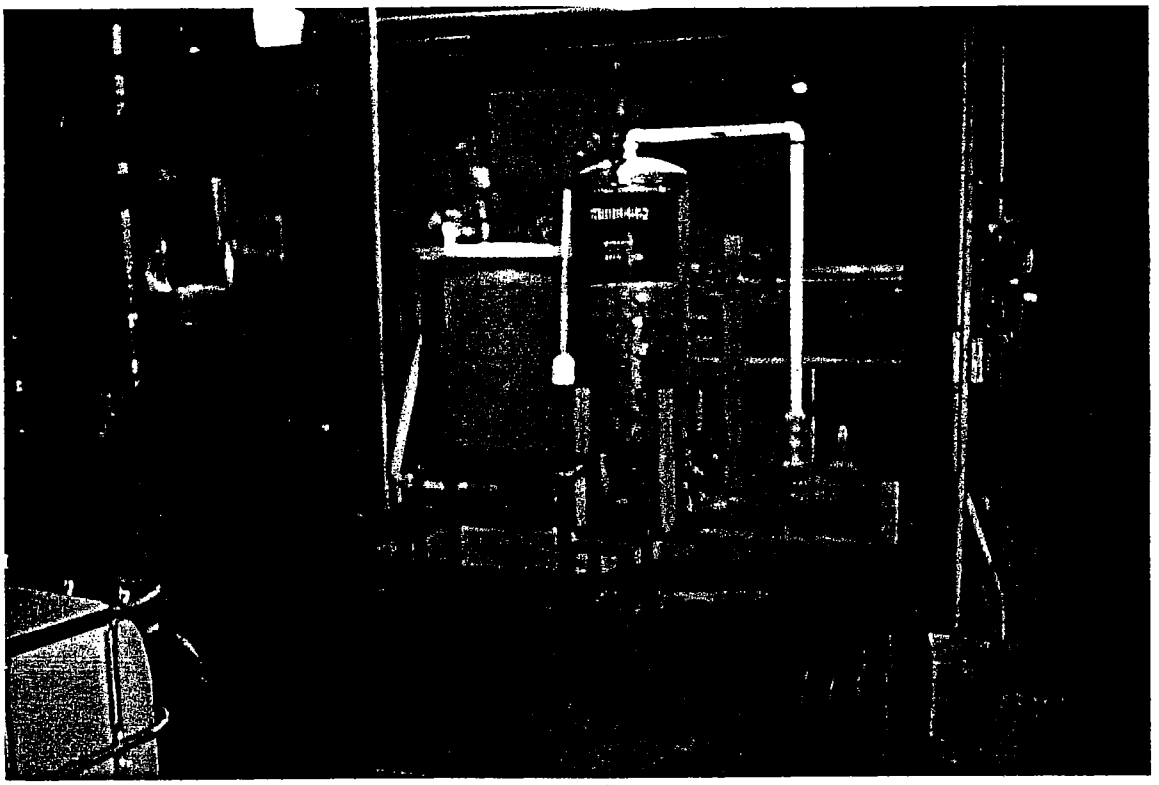
Description: Additional view of the Spill Prevention Control and Countermeasure Pond (SWMU 18).



Photograph No.: R1P6
Date: 12-19-00

Time: 1050
Direction: Indoors

Description: View of the API Tank and Chemical Sewer System (SWMU 14).



Photograph No.: R1P7
Date: 12-19-00

Time: 1050
Direction: Indoors

Description: Additional view of the API Tank and Chemical Sewer System (SWMU 14).

Photograph No.: R1P8
Date: 12/19/00

Time: 1117
Direction: Northwest

Description: View of Outfall 001.

Photograph No.: R1P9
Date: 12/19/00

Time: 1117
Direction: Northwest

Description: Additional view of Outfall 001.

Photograph No.: R1P10
Date: 12/19/00

Time: 1127
Direction: Southwest

Description: View of the Equalization Pond (SWMU 15).

Photograph No.: R1P11
Date: 12/19/00

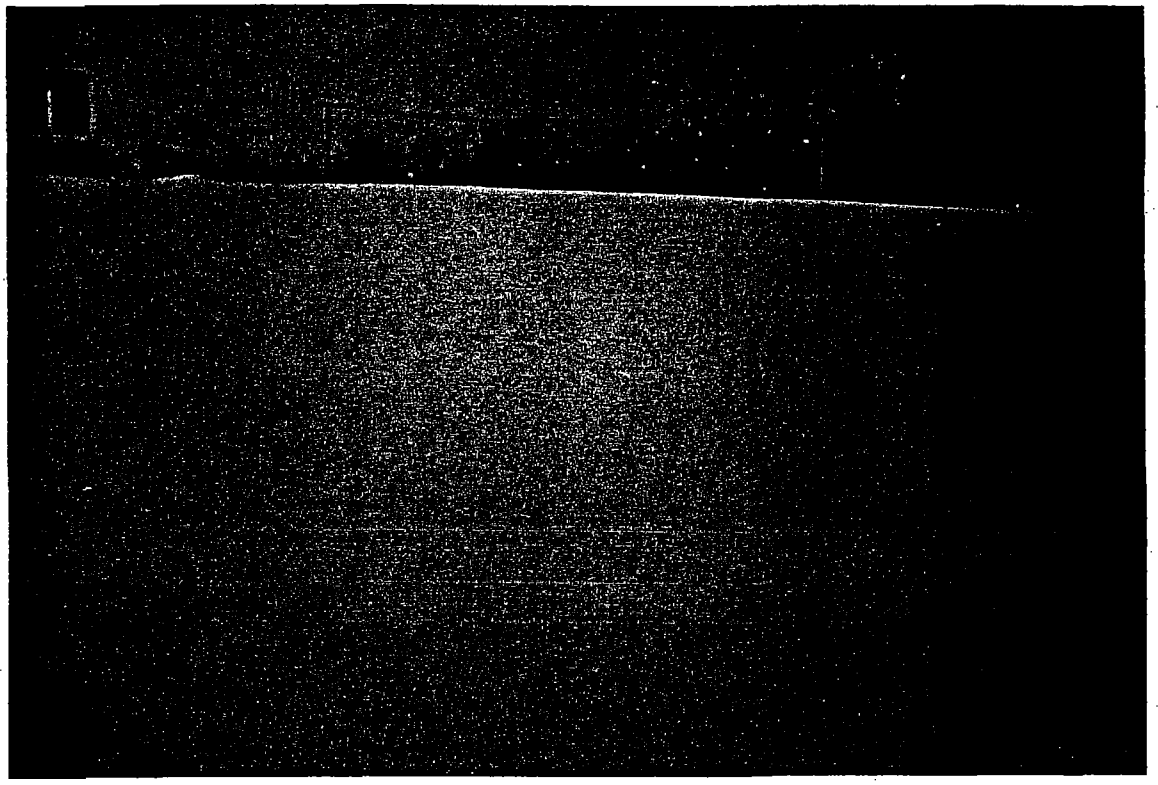
Time: 1133
Direction: Southwest

Description: View of the North Cooling Water Pond (SWMU 16).

Photograph No.: R1P12
Date: 12/19/00

Time: 1133
Direction: South

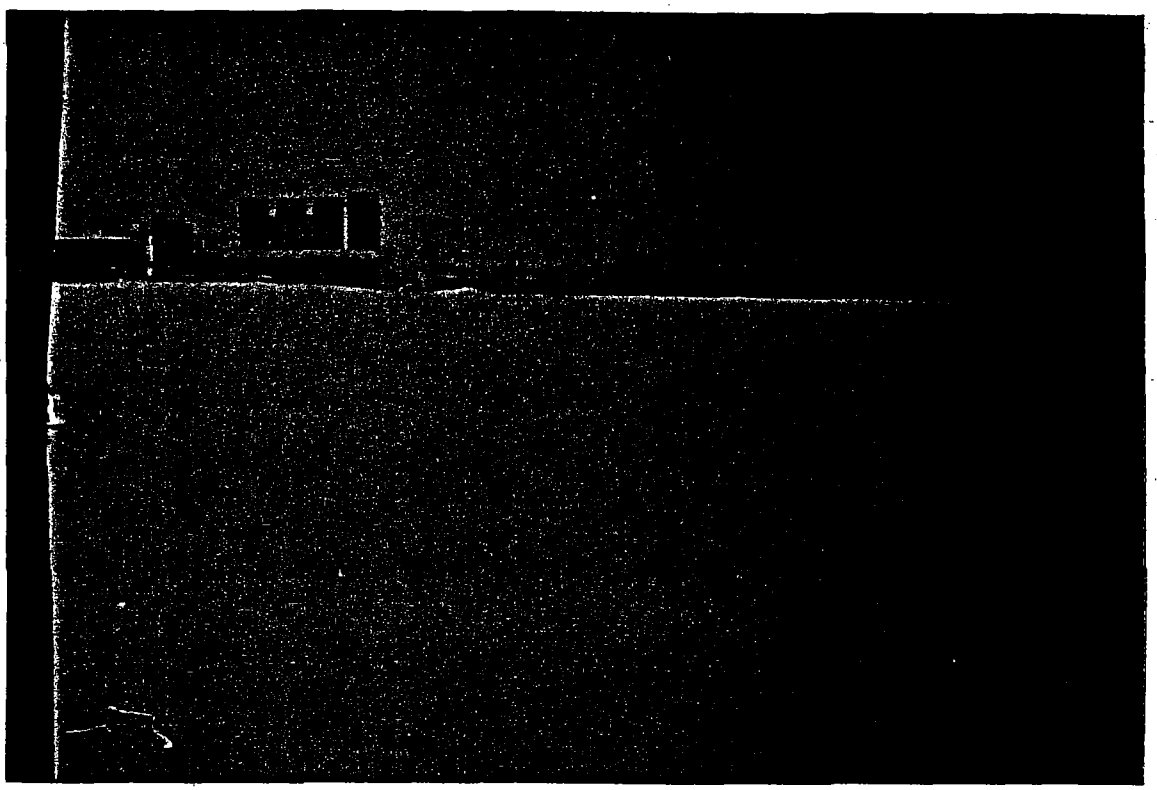
Description: View of the South Cooling Water Pond (SWMU 17).



Photograph No.: R1P13
Date: 12/19/00

Time: 1135
Direction: Northeast

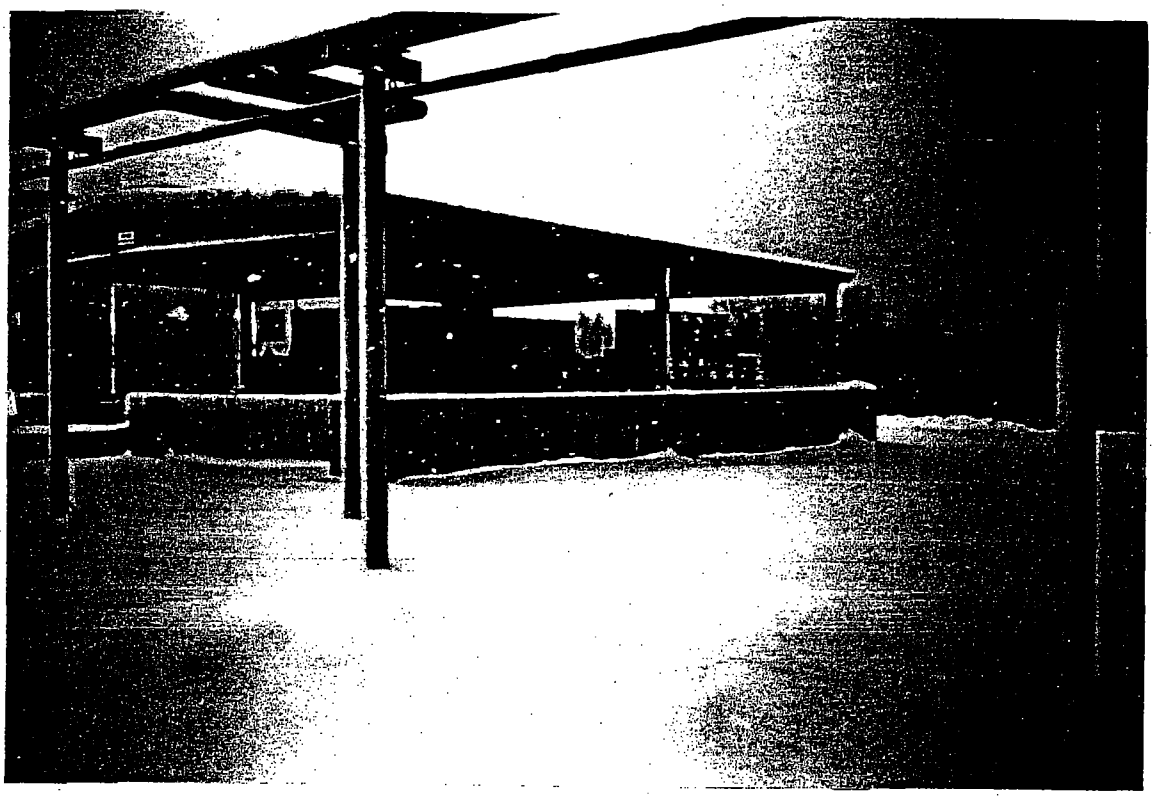
Description: View of the Evaporation Pond (SWMU 20).



Photograph No.: R1P14
Date: 12/19/00

Time: 1135
Direction: Northeast

Description: Additional view of the Evaporation Pond (SWMU 20).



Photograph No.: R2P1
Date:12/19/00

Time: 1043
Direction: Southwest

Description: View of the RCRA Hazardous Waste Pad (SWMU 19).

Photograph No.: R2P2
Date:12/19/00

Time: 1043
Direction: Southwest

Description: Additional view of the RCRA Hazardous Waste Pad (SWMU 19).

APPENDIX B
Visual Site Inspection Field Notebooks

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Adrian, MI
Ø3005.003.0004.31.04
LOG BOOK

4 5/8" x 7" - 64 Pages

Book 1 of 2

TechLaw, Inc. (TechLaw) was tasked by the U.S. EPA Region 5 to conduct a Preliminary Assessment/Visual Site Inspection (PA/VSI). The RCRA Facility assessment (RFA) is the first step in implementing the corrective actions provisions of the 1984 Hazardous and Solid Waste Amendment (HSWA) to the Resource Conservation and Recovery Act (RCRA). The purpose of the RFA is to identify environmental release or potential release from solid waste management units (SWMUs) and areas of concerns (AOCs) that may require corrective action by the facility owner. The PA/VSI is a form of an RFA and is suitable for implementing corrective action provisions of the HSWA. This PA/VSI report constitutes the reporting requirements for the RFA at the Wacker Silicones Corporation (Wacker). Wacker is located in Adrian, Lenawee Cty, Michigan.

12/19-20

12-19-00 Tuesday

To fulfill the requirements of the PA/VSI, TechLaw divided the activities into two phases. The 1st which included Conducting a review of available files and ancillary information provided by Region 5 EPA and the Michigan Department of Natural Resources (MDNR) evaluated Known or suspected migration pathways of contaminants detected at the site; and identified — Solid Waste Management Units — (SWMUs) and Area of Concerns (AOCs). It should be noted that available file information did not include Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Preliminary Assessment or Site Inspection reports. Phase II Consisted of the conducting of the VSI. The goals of the VSI include the following:

1) Survey the site for hydrologic, geologic & surficial features;
2) Identify, locate, & Observe SWMUs & AOCs; and,
3) Review site information w/

12-19-00

Facility rep for clarification. TechLaw mobilized to the Wacker Facility on December 19, 2000. Field personnel consisted of Matt Lary and Keith Slider; Keith Slider was designated as the Project Manager. The Weather is as follows: Partly Cloudy w/ chances of full sun by noon, -20°C w/ approx 30 inches of Snow (possible chances for 3-5 inches in late afternoon).

Activities for today will consist of meeting the goals of the PA/VSI previously mentioned. The following is a list of 23 SWMUs and 2 AOCs that will be observed and identified as a part of the VSI:

12-19-00

SWMU/AOC OBSERVATION

#	STATUS	Identification
1	SWMU	Tank T-101
2		" T-105
3		" T-108
4		Haz. Waste Pad #1
5		Tank T-417
6		" T-418
7		" T-419
8		H. Bay Sump Pump
9		RFV Sump Pump
10		Tank T-124A
11		" T-126B
12		" T-127A
13		" T-127B
14		API TK
15		Equalization Pond
16		Chemical Waste Pond-N
17		" " " -S
18		SPCC Pond
19		NH Pond
20		Haz. Waste Pad #2
21		Evaporation/Settling Pond
22		Old Drum Burial
23	↓	Rx Bed Burial

12-19-00

SWM/U/AOC OBSERVATION (Cont'd)

#:	Observation
1	Previously Removed; No Longer Available
2	" " " " "
3	" " " " "
4	Previously Asphaulted; No longer Available
5	Previously Removed; No Longer Available
6	" " " " "
7	" " " " "
8	" " " " "
9	" " " " "
10	" " " " "
11	" " " " "
12	" " " " "
13	" " " " "
14	No visible release or other concerns
15	No visible release or other concerns
16	No visible release or other concerns
17	No visible release or other concerns
18	No visible release or other concerns
19	No visible release or other concerns
20	1, 55-gallon unlabelled drum
21	No environmental concerns
22	No environmental concerns
23	No environmental concerns

12-19-00

12-19-00 Tuesday

AOC Observation

#	Identification
1	Evap. + Settling Pond
2	Old Prison Burial Area

Intentionally Left Blank

12-19-00

AOC Observation

#	Observation
1	Not Visible; due to snow,
2	No visible leachate; Indication of vegetation

Intentionally Left Blank

12-19-00

0730 hrs - Slider & Larry departed hotel for site; Reviewed safety checklist & Emergency route to local hospital.

0900 hrs Arrived at facility meeting center met w/ facility representatives, Robert Sullivan and Mike Decker; Reviewed current paper work, which included updated maps, flow plans, and aerial photos.

0945 hrs Begin site reconnaissance (VSI) [observations briefly listed on previous page]

1052 hrs - Old Drum Site (AOC #2); No visible leachate concerns or other visible environmental issues; vegetation is present (Limited visibility due to snow)

1054 hrs - API Area aka NH Pond No visible releases or other environmental concerns;

1110 hrs - FTPP aka SPCC; unit is active upon inspection; No visible release or other environmental concerns;

1130 hrs — Evaporation Pond - Not visible due to snow; No sight of leachate or other environmental concerns

The following SWMU's were previously removed and no longer available for inspection:

- Tanks T-101; -105; -108; -417; -418; -419, -126A; -126B; -127A; -127B; and the Bay Sump Pump and the RTV Sump Pump. These were stated to be removed due to a change in manufacturing process by Wacker.

1140 hrs Cooling Pond A+B - No visible releases noted.

1145 hrs RCRA Pad aka HAZ Pad #2 contained one, 55-gallon drum of unmarked waste. No other environmental concerns. It should be noted that Pad had roof, further diking was in good condition w/ No visible cracks

1200 hrs Returned to office to obtain file documentations and other data not in EPA files

1300 hrs VSI Field inspection activities Concluded. Slider & Larry depart the site.

12-19-00

12-19-00

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03005.005.004.3$.04
Photographic Logbook
Book 2 of 2

4 5/8" x 7" - 64 Pages

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12-19-

Frame #	Date	Time	Photographer	Direction	Subject
Roll 1 PIC 1	12/19/00	10:43am	M. LARY	SW	OLD DRUM SITE
" PIC 2	"	"	"	S	" " + MONITORING WELL
" PIC 3	"	"	"	SE	" "
PIC 4	"	[illegible]	"	S	BIRD HOUSES
PIC 5	"	[illegible]	"	N	TREE FARM
PIC 6	"	[illegible]	"	S	PIPP POND
PIC 7	"	"	"	SE	" "
PIC 8	"	[illegible]	"	INDOORS	API TANK LIB SLUDGE
PIC 9	"	"	"	"	" " "
PIC 10	"	"	"	"	" "
PIC 11	"	"	"	"	" " FLOTATION TANK
PIC 12	"	"	"	"	" " DRUM SEPERATOR
PIC 13	"	"	"	"	LEFT / SOLIDS INPUT - R / CLEAN H_2O
PIC 14	"	10:[illegible]24	"	"	SAND FILTER
PIC 15	"	"	"	"	UV
PIC 16	"	"	"	"	CLEAN EFFLUENT
PIC 17	"	"	"	"	COMPOSITE SAMPLER
PIC 18	"	"	"	"	MONITORS (pH, FLOW)
PIC 19	"	11:176	"	NW	TREATED PLANT OUTFALL (#1 DISCHARGE AREA)
PIC 20	"	"	"	"	" " FLOODED STORM DRAIN WITH RUST COLOR FROM OUTFALL
PIC 21	"	10:279	"	SW	STILLING POND FROM RIVER INTAKE
PIC 22	"	10:534	"	SW	COOLING POND
PIC 23	"	"	"	S	" "
PIC 24	"	11:354	"	NE	OLD EVAPORATION POND
PIC 25	"	[illegible]	"	N	" "

11:02	ROLLING	12:19	CLEAR
11:04	PIC 2	"	"
"	PIC 3	"	"
12:18	PIC 3	"	"
"	PIC 4	"	"

NE	RCRA PAD
E	"
E	"
SW	SOLID WASTE MAN. UNIT
"	"

No Further Information

12-19-00

No Further Information

12-12-00

6

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12-14-00

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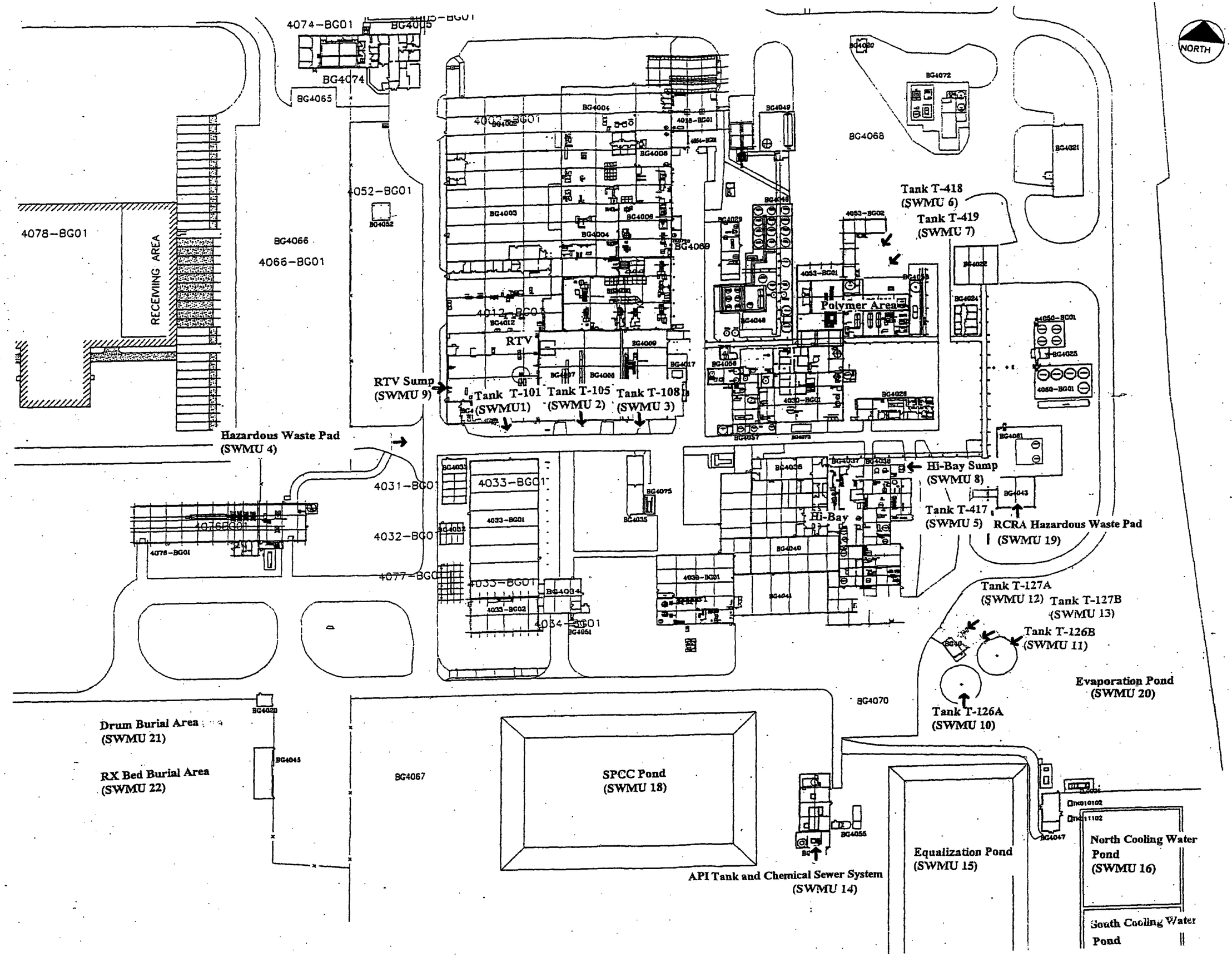
12-19-00

APPENDIX C
Facility Layout and SWMU and AOC Locations


NORTH
4074–BG01
BG4074
BG4065
4052–BG01
BG4052
4078–BG01
RECEIVING AREA
BG4066
4066–BG01
4012–BG01
BG4012
RTV
RTV Sump
(SWMU 9)
Tank T-101
(SWMU1)
Tank T-105
(SWMU 2)
Tank T-108
(SWMU 3)
Hazardous Waste Pad
(SWMU 4)
4031–BG01
4032–BG01
4077–BG01
4033–BG01
4034–BG01
BG4051
BG4069
BG4068
BG4072
BG4021
Tank T-418
(SWMU 6)
Tank T-419
(SWMU 7)
4053–BG02
4053–BG01
Polymer Area
BG4022
BG4024
4050–BG01
BG4025
BG4026
BG4057
BG4061
Hi-Bay Sump
(SWMU 8)
Hi-Bay
BG4043
Tank T-417
(SWMU 5)
RCRA Hazardous Waste Pad
(SWMU 19)
Tank T-127A
(SWMU 12)
Tank T-127B
(SWMU 13)
Tank T-126B
(SWMU 11)
Evaporation Pond
(SWMU 20)
Tank T-126A
(SWMU 10)
BG4070
Drum Burial Area
(SWMU 21)
RX Bed Burial Area
(SWMU 22)
BG4045
BG4067
SPCC Pond
(SWMU 18)
API Tank and Chemical Sewer System
(SWMU 14)
BG4055
Equalization Pond
(SWMU 15)
BG4047
North Cooling Water
Pond
(SWMU 16)
South Cooling Water
Pond

1/30/01

RCRA PRIORITIZATION SYSTEM SCORING SUMMARY

FOR

WACKER SILICONES CORPORATION

EPA SITE NUMBER: MID075400671

ADRIAN, MI

SCORED BY: M. POWERS

OF TECHLAW, INC.

ON 01/30/01

GROUNDWATER SCORE	:	76.92
SURFACE WATER SCORE	:	37.32
AIR ROUTE SCORE	:	11.11
ONSITE SCORE	:	6.00

MIGRATION SCORE	:	43.21

01/30/01

EPA ID NO. : MID075400671
WACKER SILICONES CORPORATION

WS-2 SURFACE WATER ROUTE

RELEASES

IS THERE AN OBSERVED RELEASE? N

IS THERE A PERMITTED OUTFALL? Y

HAVE THERE BEEN PERMIT VIOLATIONS? N

ROUTE CHARACTERISTICS

FACILITY LOCATION: OTHER

24-HOUR RAINFALL: 2.0

DISTANCE TO SURFACE WATER (MILES): 0.01

PHYSICAL STATE: LIQUID, GAS, SLUDGE

CONTAINMENT: FAIR

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: TRICHLOROETHYLENE

TOXICITY/PERSISTANCE VALUE: 12

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS	:	0
DRUMS	:	0

LARGE STORAGE OR DISPOSAL AREAS ARE PRESENT

TARGETS

SURFACE WATER USE: POSSIBLE DRINKING WATER OR RECREATION

DISTANCE TO INTAKE OR CONTACT POINT (MILES): 0.1

DISTANCE TO SENSITIVE ENVIRONMENT (MILES): 0.1

01/30/01

EPA ID NO. : MID075400671
WACKER SILICONES CORPORATION

WS-4 ON SITE CONTAMINATION

ACCESS TO SITE: LIMITED ACCESS

IS THERE AN OBSERVED SURFACE SOIL CONTAMINATION? N

CONTAINMENT: FAIR

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: TRICHLOROETHYLENE

TOXICITY/PERSISTANCE VALUE: 3

TARGETS

DISTANCE TO RESIDENTIAL AREAS (MILES): 0.19

IS THERE AN ON-SITE SENSITIVE ENVIRONMENT: Y

(abbreviated) Report sent to Wacker in 2001

TECHLAW INC.

[redacted] DRIVE, SUITE 1260, CHICAGO, IL 60606
PHONE: (312) 578-8900
FAX: (312) 578-8904

RZ2.R05704.01.ID.252

May 4, 2001

Mr. James Barancin
Operations Manager
Wacker Silicones Corporation
3301 Sutton Road
Adrian, Michigan 49221

Reference: EPA Contract No. 68-W-99-017; Work Assignment No. R05704; Multi-Site Technical Document Review (Environmental Priorities Initiative (EPI) Assessments); Wacker Silicones Corporation, Adrian Michigan; EPA ID No. MID075400671; Final Preliminary Assessment/Visual Site Inspection Report; Task 04 Deliverable

Dear Mr. Barancin:

TechLaw, Inc. recently performed a Visual Site Inspection of your facility in conjunction with preparing a Preliminary Assessment/Visual Site Inspection (PA/VSI) Report. The U.S. EPA Work Assignment Manager has requested that TechLaw, Inc. provide your company with a photocopy of the recently completed Final Preliminary Assessment/Visual Site Inspection (PA/VSI) Report (excluding Section IV - Conclusions and Suggested Further Actions). This PA/VSI Report has already been submitted to the U.S. EPA for their review, and approved for subsequent release to you.

Should you have any questions or require additional information, please feel free to contact either Mr. Gerald Phillips of the U.S. EPA who can be reached at (312/886-0977), myself at 312/345-8938 or Mr. Mike Powers at 312/345-8941.

Sincerely,

John Koehnen

John Koehnen
Regional Manager

cc: F. Norling, EPA Region 5 (w/out att.)
G. Phillips, EPA Region 5 (w/out att.)
M. Powers (w/out att.)
J. Rogers, MDEQ
T. Manning, EPA Region 5
W. Jordan, Central Files (w/out att.)
Chicago Central Files

FINAL PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION REPORT
FOR
WACKER SILICONES CORPORATION
3301 SUTTON ROAD
ADRIAN, MICHIGAN
EPA ID NO. MID075400671

Submitted to:

Mr. Gerald Phillips
U.S. Environmental Protection Agency
Region 5 D-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

Submitted by:

TechLaw, Inc.
20 North Wacker Drive, Suite 1260
Chicago, Illinois 60606

EPA Work Assignment No.	**R05704**
Contract No.	**68-W-99-017**
TechLaw WAM	**Mr. John Koehnen**
Telephone No.	**312/345-8938**
EPA WAM	**Mr. Thomas Manning**
Telephone No.	**312/886-6943**
EPA TA	**Mr. Gerald Phillips**
Telephone No.	**312/886-0977**

May 4, 2001

FINAL PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION REPORT
FOR
WACKER SILICONES CORPORATION
3301 SUTTON ROAD
ADRIAN, MICHIGAN
EPA ID NO. MID075400671

TABLE OF CONTENTS

I. EXECUTIVE SUMMARY

The RCRA Facility Assessment (RFA) is the first step in implementing the corrective actions provision of the 1984 Hazardous and Solid Waste Amendment (HSWA) to the Resource Conservation and Recovery Act (RCRA). The purpose of the RFA is to identify environmental releases or potential releases from solid waste management units (SWMUs) and areas of concern (AOCs) that may require corrective action by the facility owner. The PA/VSI is a form of an RFA and is suitable for implementing corrective action provisions of the HSWA. This PA/VSI report constitutes the reporting requirement for the RFA at the Wacker Silicones Corporation.

A preliminary assessment (PA) of the available U.S. Environmental Protection Agency (U.S. EPA) and State of Michigan file materials was conducted to familiarize the TechLaw, Inc. (TechLaw) Team with past compliance history, evidence of past releases, potential migration pathways, potential for exposure to any released hazardous constituents, closure methods and dates, citizen complaints, manufacturing processes and waste management practices at the Wacker Silicones Corporation (Wacker) facility. A Visual Site Inspection (VSI) was conducted on December 19, 2000, by TechLaw field personnel to locate, observe, and identify SWMUs and AOCs. Photographs were taken during the VSI and are attached in Appendix A. The VSI Field Notebooks are included in Appendix B, and a site map showing the 22 SWMU locations is presented in Appendix C.

A total of 22 SWMUs were identified during the PA/VSI. These are described in more detail in Section III of this report. One of these units, the Drum Burial Area (SWMU 21) was used for the improper disposal of approximately 85, 55-gallon drums of chlorisilane (comprised of silicon and hydrogen, used in the rubber and similar materials). Wacker removed the drums and contaminated soils and installed a clay cap over a 4-acre area in 1984. Though formal closure of this unit was approved by the Michigan Department of Natural Resources (MDNR) in 1984, a June 30, 1999 Hydrogeologic Investigation Report (Reference No. 26) indicates the presence of PCE and TCE in groundwater at concentrations exceeding 15,000 parts per million (ppm). Based on available file material and information obtained during the VSI, it is unclear if additional activities are being evaluated in response to groundwater investigation results.

II. SITE DESCRIPTION

Wacker Silicones Corporation (Wacker) was established in 1965, under the name of Stauffer-Wacker Silicones Corporation. The Wacker facility encompasses approximately 280 acres of land and is located in Adrian, Lenawee County, Michigan. Twenty-five acres are currently in use. The property is situated north of the River Raisin and west of the Norfolk and Western Railroad and is approximately 4.5 miles south of Tecumseh, Michigan. Refer to Figure 1: Facility Layout and SWMU Locations.

In May 1987, Wacker Chemical Corporation (the owner of 49% of Stauffer-Wacker Silicones Corporation) purchased Stauffer's portion of ownership and subsequently changed the name to Wacker Silicones Corporation. Wacker Chemical Corporation is currently owned by Wacker Chemie GmbH of West Germany.

Wacker is an active facility, which manufactures a variety of silicone products including fluids, sealants, antifoams, and rubbers. Wacker's product line includes several hundred different formulations of the above products, many of which are specialty chemicals for specific customers. The plant operates 24 hours per day, 7 days per week and employs approximately 415 employees.

A variety of processes are used at the facility including chemical reactions, distillation, hydrolysis, mixing and polymerization. Wacker manufacturing operations are divided into four basic manufacturing areas: the Polymer area produces various fluids and gums including silicone oils, solvent blends, and some plant intermediates, including alkaline fluid; the Hi-Bay area produces band ply-tubes, outside tire paints, antifoams, emulsifiers, and printing fluids along with plant intermediates for the polymers and Room Temperature Vulcanization (RTV) areas; the RTV area produces RTV compounds and silicone greases; and, the Heat-Curable Rubber (HCR) area produces rubber for automotive industry (spark plug wire boots, etc.) from fluid or gum bases mixed with various fumed silicas, fillers, and alkaline fluids. An HCR compound consists of a base plus a color additive and a catalyst which results in a solid. The resulting solid may be extruded to customer order.

Hazardous wastes are generated by tank cleaning, byproducts generations, spent solvents from production, laboratory solvents, off-specification products, and fume recovery.

The following wastes identified during the PA and confirmed during the VSI are generated as a result of general cleanup at Wacker for the various batch mixing tanks and reactors:

- Mixed Alcohol;
- Hydrocarbon (extremely flammable);
- Hydrocarbon (flammable);
- Hydrocarbon (combustible);
- Solvent;

- Mineral spirits; and,
- Polychlorohydrocarbon.

The following wastes are generated as by-products or wastes from various plant processes:

- Mixed Alcohol;
- Hydrocarbon (extremely flammable);
- ES-40 Lites;
- Cyclizer;
- SWS-960; and,
- HCR Vent.

The following wastes are generated from the Technical Center Laboratories:

- Flammable Waste (Tech Center);and,
- Non-combustible Waste (Tech Center).

Release History

A 1979 point source study prepared by the MDNR noted the existence of an unlined "black pond" (the former Evaporation Pond (SWMU 20)), which was used by Wacker for disposal of bad batches, floor washings, and reactor vessels washings. The amount reportedly disposed was approximately 30;000 gallons per month, since the beginning of operations at Wacker. Methyl chloroform (1,1,1-trichloroethane; TCA) was also detected in the pond and in the discharge from the outfall (Outfall 001). The NPDES permit did not, at that time, authorize the discharge of TCA.

In 1979, MDNR staff learned of the Drum Burial Area (SWMU 21) where Wacker employees had allegedly buried 100 drums. In 1984, Wacker (then SWS Silicones Corporation) uncovered, evaluated, and staged for removal approximately 85, 55-gallon drums of chlorisilane and approximately 140 cubic yards of contaminated soils. The drums were found in various stages of decomposition (conditions ranged from highly corroded, with only top and bottom rings, to some with very little apparent corrosion).

A 2000 hydrogeological evaluation, prepared by Atwell-Hicks, Inc., of groundwater contamination at the Wacker property and a proposed residential development (the Spohr property) at the southeast corner of Raisin Center Highway and Kopke Road, noted migration of groundwater contamination southeast toward the Raisin River and the proposed residential development. It should be noted that the hydrogeological evaluation was not sufficient to make a determination of the source or the extent of the contamination. Further, there is very little information available on migration of contamination beneath the river or the status of groundwater flow on the east side of the River Raisin.

No other releases were identified during the PA/VSI.

Environmental Setting

The site is bound by fencing on three sides and by the River Raisin to the south. A guard house is situated at the main entrance to the plant. The truck entrance gate (approximately 800 feet east of the main entrance) is remotely controlled by the guard at the main gate. Employees must show identification to obtain access; visitors must sign in and out. Woods and brush lie in the southern portion of the site immediately north of the River Raisin; farmsteads are located beyond the northern, eastern and southern borders of the site. Single family homes are located beyond the western boundary of the facility. The nearest residence is approximately 1,000 feet from the site property. There are approximately 26 drinking water wells at residences within 1,000 feet of the site property. There are no schools within 200 feet of the site. There are no other industries within 1,000 feet surrounding the site.

Soils consist of interbedded sands, silts, and clays of glacial origin. The upper soils were reworked several times and deposited as beaches and lacustrine sediments in a large lake in front of the receding ice. Repeated advances and retreats of the ice front produced a highly variable hydrogeologic environment. The upper soils on the upland are predominantly fine sands with varying amounts of silts.

According to the Michigan Water Resources Commission (Geology of River Raisin Basin, 1963), the River Raisin lies near the southeastern edge of an area known geologically as the Michigan Basin. The bedrock formations which underlie the glacial drift in the River Raisin basin span many years in geologic time from late Silurian to middle Missippian, and generally consist of sandstone, limestone and/or shale.

The glacial features of the River Raisin basin may be associated with the formation of the moraines or the glacial lakes. The glacial features consist of a heterogeneous mixture of sand, gravel, clay and silt. The thickness of the glacial features varies between 50 and 350 feet. The site is situated on rolling uplands adjacent to the valley of the River Raisin. The ground surface slopes gently to the southeast, from a topographic high of approximately 790 feet above MSL near the Research and Development Center, to an elevation below 730 feet above MSL, in the floodplain of the river. The center of the Drum Burial Area (SWMU 21) is approximately 1,500 feet southeast of the Research and Development Center and 500 feet northwest of the closest approach of the floodplain. Topographic relief across the upland is approximately 15 feet. An abrupt change in slope marks the edge of the upland.

Previous studies indicate that groundwater was encountered at approximately 33 to 35 feet below ground surface in the Drum Burial Area (SWMU 21). Based on the groundwater elevation, the groundwater flow direction in the former drum disposal area was determined to be toward the southeast, in the direction of the wetland area and Raisin River. The groundwater flow direction

near the former was determined to be toward the south and southeast, also in the direction of the wetlands and Pond (SWMU 20) the River Raisin.

Surface drainage is southeasterly toward the River Raisin. The average annual precipitation and snowfall are 32.90 inches and 30.50 inches, respectively. The 100 year floodplain elevation at the site is 721 feet above Mean Sea Level (MSL). The Wacker facility is located outside of the floodplain at an elevation of 748 feet above MSL.

Storm waters are generally collected and transported via a network of culverts, ditches and underground pipes, that connect to the Spill Prevention and Countermeasure Control (SPCC) Pond (SWMU 18). Process washwaters and hazardous storage tank runoff are collected in a similar network of culverts, ditches and underground pipes that go to the plant chemical sewer treatment system. All storm water is eventually discharged into the River Raisin via three outfalls:

1. Outfall 001 which transports process washwater from the API Tank and Chemical Sewer System (SWMU 14);
2. Outfall 002, which transports stormwater from the SPCC Pond (SWMU 18); and,
3. River Inlet, which transports water from the River Raisin into the pumphouse associated with the North and South Cooling Water Ponds (SWMUs 16 and 17, respectively).

Regulatory History

An NPDES Notice of Violation was issued by MDNR in February 5, 1980 for the unauthorized surface water and groundwater discharges of TCA. After a number of meetings and exchanges of correspondence, Wacker agreed to perform a Phase I Hydrogeologic Study in the area of the evaporation and settling pond.

In 1982, Stauffer-Wacker Silicones Corporation applied for a RCRA permit from U.S. EPA, Region 5. On September 10, 1984, that permit was issued. The permit covered storage of various hazardous wastes in containers on an unspecified storage pad (unable to determine which pad, SWMU 4 or SWMU 19), and in three aboveground storage tanks (AST), Tanks T-101, Tanks-105, and Tanks -108 (SWMUs 1, 2, and 3, respectively). Two RCRA violations were observed and indicated in a letter report on September, 25 1992. The violations included:

- Failure to relocate hazardous waste drums from Hi-Bay area to a secondary containment area within three days of generation; and,

- Discharging rainwater accumulated in the bulk storage tank secondary containment on to the ground without a discharge permit.

In response to the first violation, a response letter from Wacker indicated that they were experiencing forklift/equipment failure at the time of the inspection, which resulted in the delay of moving the drums. It should be noted that a notice of violation was not issued for these violations.

Currently, Wacker maintains two air permits (Permits 158-97 and 597-81B) and an NPDES permit (issued August 2000). These documents were not available in files to review during the PA/VSI. There were no further history of releases discovered during the PA/VSI.

III. SOLID WASTE MANAGEMENT UNITS

A total of 22 Solid Waste Management Units (SWMUs) were identified during the PA and VSI. The SWMUs are listed in Table 1 on the following page.

This section presents descriptions of the SWMUs identified during the PA and VSI at the Wacker Silicones Corporation (formerly Stauffer-Wacker Silicones [SWS] Corporation) facility. Photograph numbers correspond to those presented in the Photograph Log in Appendix A. A map showing SWMU locations is presented in Appendix C.

TABLE 1

SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN WACKER SILICONES CORPORATION, ADRIAN, MICHIGAN

SWMU	SWMU	Release Potential
SWMU 1*	Tank T-101	Low
SWMU 2*	Tank T-105	Low
SWMU 3*	Tank T-108	Low
SWMU 4*	Hazardous Waste Pad	Low
SWMU 5*	Tank T-417	Moderate
SWMU 6*	Tank T-418	Moderate
SWMU 7*	Tank T-419	Moderate
SWMU 8*	Hi-Bay Sump	Moderate
SWMU 9*	RTV Sump	Moderate
SWMU 10	Tank T-126A	Moderate
SWMU 11	Tank T-126B	Moderate
SWMU 12	Tank T-127A	Moderate
SWMU 13	Tank T-127B	Moderate
SWMU 14	API Tank and Chemical Sewer System	Low
SWMU 15	Equalization Pond	Moderate
SWMU 16	North Cooling Water Pond	Low
SWMU 17	South Cooling Water Pond	Low
SWMU 18	Spill Prevention Control and Countermeasure Pond	Low
SWMU 19	RCRA Hazardous Waste Pad	Low
SWMU 20*	Evaporation Pond	High
SWMU 21*	Drum Burial Area	High
SWMU 22*	RX Bed Burial Area	High

* SWMUs 1 through 9 and 20 through 22 were reportedly no longer in operation at the time of the VSI.

SWMU 1 - Tank T-101

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: Tank T-101 was used intermittently from 1964 to1975 for the storage of methyl chloride, out of use from 1975 to 1980, and returned to use from 1980 to 1992 for RCRA hazardous waste storage. Tank T-101 was removed and closure was approved by MDNR in 1992.

Location: This unit was located immediately southwest of the RTV Building.

Physical Description: Tank T-101 was a 25,000 gallon steel horizontal above ground storage tank, utilized for the storage of spent 1,1,1-trichloroethane solvent waste generated from the Hi-Bay processing area. The T-101 storage tank was situated on a 28-foot (ft) by 64-ft concrete pad surrounded by a 3.5- to 4-ft tall reinforced concrete wall. The T-101 storage tank, oriented horizontally, was supported by two reinforced concrete saddles. Spent solvent was conveyed to the tank via drums and tote containers from the Hi-Bay process area.

No use of this unit occurred from 1975 to1980. This unit was physically removed from the Wacker facility in November 1992 and closure was approved by MDNR shortly thereafter. Sampling of tank contents was conducted at the time of the tank removal; no soil sampling was conducted.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: Spent 1,1,1-trichloroethane solvent wastes (F002) were generated from the Hi-Bay processing area (tank cleaning, spent production solvents, etc.) and were transported via drums and tote containers to Tank T-101. When reaching a volume of approximately 6,000 gallons, the accumulated waste was pumped to a tanker using an air-operated diaphragm pump and then transported to a licensed reclamation facility.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified for this unit during the PA/VSI and the closure of this unit was approved by MDNR, release potential is low.

SWMU 2 - Tank T-105

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: Tank T-105 was used intermittently from 1964 to1975 for the storage of toluene, out of use from 1975 to 1980, and returned to use from 1980 to 1992 for RCRA hazardous waste storage. Tank T-105 was removed and closure was approved by MDNR in 1993.

Location: This unit is located immediately south of the RTV Area Building, between former Tank T-101 and former Tank T-108 (SWMUs 1 and 3, respectively).

Physical Description: Tank T-105 was a 25,000 gallon steel vertical above ground storage tank, utilized for the storage of ignitable solvent waste such as naphthas, and cyclohexane generated from the Hi-Bay processing area. The T-105 storage tank was situated on a 32.5-ft by 62-ft concrete pad surrounded by a 4-ft high, 6-inch thick reinforced concrete wall. There was a 6-inch thick concrete wall separating Tank T-105 and Tank T-108. The portion of the reinforced concrete pad directly underneath the tanks was 8-inch thick. The remaining reinforced concrete pad area was 4 inches thick.

This unit was physically removed from the Wacker facility and closure was approved by MDNR in December 1993. Sampling of tank contents was conducted at the time of the tank removal; no soil sampling was conducted.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: Mixed ignitable solvent wastes (F003)were generated from the Hi-Bay processing area and were transported via drums and tote containers to Tank T-105. When reaching a volume of approximately 6,000 gallons, the accumulated waste was pumped to a tanker using an air-operated diaphragm pump and then transported to an incinerator or a licensed reclamation facility.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified for this unit during the PA/VSI and the closure of this unit was approved by MDNR, release potential is low.

SWMU 3 - Tank T-108

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: Tank T-108 was used intermittently from 1964 to1972 for the storage of ethanol, out of use from 1972 to 1980, and returned to use from 1980 to 1992 for RCRA hazardous waste storage. Tank T-108 was removed and closure was approved by MDNR in 1993.

Location: This unit was located immediately outdoors of the southeast corner of the RTV Area Building.

Physical Description: Tank T-108 was a 25,000 gallon steel vertical above ground storage tank, utilized for the storage of mineral spirits generated in the RTV processing area. Since this unit is no longer in operation and the current owners reportedly have no knowledge of previous operations, no further information concerning this unit is available. The T-108 storage tank was situated on a 32.5-ft by 62-ft reinforced concrete pad surrounded by a 4-ft high, 6-inch thick reinforced concrete wall. There was a 6-inch thick concrete wall separating the two tanks. The portion of the reinforced concrete pad directly underneath the tanks was 8 inches. The remaining reinforced concrete pad area was 4 inches thick.

This unit was physically removed from the Wacker facility and closure was approved by MDNR in December 1993. Sampling of tank contents was conducted at the time of the tank removal; no soil sampling was conducted. No further action of this unit is pending.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: Mineral Spirits (D001)were generated from the RTV processing area and were transported via drums and tote containers to Tank T-108. When reaching a volume of approximately 6,000 gallons, the accumulated waste was pumped to a tanker using an air-operated diaphragm pump and then transported to an incinerator or a licensed reclamation facility.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified for this unit during the PA/VSI and the closure of this unit was approved by MDNR, release potential is low.

SWMU 4 - Hazardous Waste Pad

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: The Hazardous Waste Storage Pad was used from 1965 to 1985 for the storage of hazardous wastes. According to the SWMU inventory notes dated May 1989, the pad was used for the storage of empty drums from 1985 to an undetermined date. Closure was approved by MDNR in February 1995.

Location: This unit was located in the west plant area, immediately southwest of the RTV building.

Physical Description: The Hazardous Waste Storage Pad was a 43-ft by 51-ft concrete pad. The reinforced concrete pad base was 8 inches thick and surrounded by a 3-ft tall containment wall on three sides. The fourth side was equipped with a sloped ramp for access. The maximum storage capacity for the pad was 400, 55-gallon drums. The unit was approved closed by MDNR in February 1995 and the former location has been covered with an asphalt parking lot.

Closure of this was approved by MDNR in February 1995. Soil sampling was conducted at the time of closure. Analytical results were not available in the Closure Report for review. No further action of this unit is pending.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: The Hazardous Waste Storage Pad was used to store hazardous drummed materials, though wastes were not specified in the file material or during the VSI. The RCRA Hazardous Waste Pad (SWMU 19) currently manages solvent wastes (F003) generated in the research laboratory. It is likely that wastes similar to those managed by SWMU 19 were also managed by this former unit. No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified for this unit during the PA/VSI and the closure of this unit was approved by MDNR, release potential is low.

SWMU 5 - Tank T-417

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as beginning in 1973. From 1973 through 1976, the tank was used for the storage of crude HCL. From 1980 through at least 1989, the tank was used for the storage and/or treatment of hazardous washwaters. According to facility representatives present during the VSI, this unit is no longer present. However, no closure report or other information was available to verify date of removal, sampling, nature and extent of potential contamination or further actions pending (if any).

Location: This unit was on the east side of the Hi-Bay Area Building.

Physical Description: Tank T-417 was a 20,000 gallon fiberglass reinforced plastic (FRP) tank, utilized for the storage of crude hydrochloric acid from 1973 through 1976, and the storage of washwaters from 1980 to some time after 1989.

Washwaters generated in the Hi-Bay process area were collected by the former Hi-Bay Sump (SWMU 8) and piped to Tank T-417. Washwater was then conveyed via piping to the API Tank and Chemical Sewer System (SWMU 14). However, information concerning the use or conveyance of the crude hydrochloric acid was not identified during the PA/VSI.

Robert Sullivan, of Wacker stated during the VSI that this unit is no longer operable and had been removed; No closure report was available to verify date of removal, sampling, contamination or further actions pending (if any).

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: T-417 was used to store crude hydrochloric acid and hazardous washwaters. No major spills or leaks have been reported. Since this unit is no longer in operation and the current owners reportedly have no knowledge of previous operations, no further information concerning this unit is available.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**(X)**
	Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure requirements was not available. Therefore, release potential for this unit is moderate.

SWMU 6 - Tank T-418

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as beginning in 1973. From 1973 through 1976, the tank was used for the storage of crude HCL. From 1980 through at least 1989, the tank was used for the storage and/or treatment of hazardous washwaters. According to facility representatives present during the VSI, this unit is no longer present. However, no closure report or other information was available to verify date of removal, sampling, nature and extent of potential contamination or further actions pending (if any).

Location: The location of this unit was immediately north of the Polymer Area and west of Former Tank T-419 (SWMU 7).

Physical Description: Tank T-418 was a 20,000 gallon fiberglass reinforced plastic (FRP) tank, utilized for the storage of crude hydrochloric acid from 1973 through 1976, and the storage of washwaters from 1980 to some time after 1989.

Washwaters generated in the Hi-Bay process area were collected by the former Hi-Bay Sump (SWMU 8) and piped to Tank T-418. Washwater was then conveyed via piping to the API Tank and Chemical Sewer System (SWMU 14). However, information concerning the use or conveyance of the crude hydrochloric acid was not identified during the PA/VSI.

Robert Sullivan, of Wacker stated during the VSI that this unit is no longer operable and had been removed; No closure report was available to verify date of removal, sampling, contamination or further actions pending (if any).

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: T-418 was used to store crude hydrochloric acid and hazardous washwaters generated in the Hi-Bay process area. No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:

High	**( )**
Moderate	**(X)**
Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure requirements was not available. Therefore, release potential for this unit is moderate.

SWMU 7 - Tank T-419

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as beginning in 1973. From 1973 through 1976, the tank was used for the storage of crude HCL. From 1980 through at least 1989, the tank was used for the storage and/or treatment of hazardous washwaters. According to facility representatives present during the VSI, this unit is no longer present. However, no closure report or other information was available to verify date of removal, sampling, nature and extent of potential contamination or further actions pending (if any).

Location: The location of this unit was immediately north of the Polymer Area Building and immediately east of Tank T-418 (SWMU 6).

Physical Description: Tank T-419 was a 20,000-gallon fiberglass reinforced plastic (FRP) tank, utilized for the storage of crude hydrochloric acid from 1973 through 1976, and the storage of washwaters from 1980 to some time after 1989.

Washwaters generated in the Hi-Bay process area were collected by the former RTV Sump (SWMU 8) and piped to Tank T-419. Washwater was then conveyed via piping to the API Tank and Chemical Sewer System (SWMU 14). However, information concerning the use or conveyance of the crude hydrochloric acid was not identified during the PA/VSI.

Robert Sullivan, of Wacker stated during the VSI that this unit is no longer operable and had been removed; No closure report was available to verify date of removal, sampling, contamination or further actions pending (if any).

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: T-419 was used to store crude hydrochloric acid and hazardous washwaters generated by the Hi-Bay process area. No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:

High	**( )**
Moderate	**(X)**
Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure requirements was not available. Therefore, release potential for this unit is moderate.

SWMU 8 - Hi-Bay Sump

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as being 1980 to 1989. Facility representatives present during the VSI indicated that this unit has since been closed in place by facility employees. However, no closure report or other information was available to verify date of removal, sampling, nature and extent of potential contamination or further actions pending (if any).

Location: This unit was located in the northeast corner of the manufacturing building, within Hi-Bay Area.

Physical Description: The Hi-Bay sump was a 500-gallon underground concrete sump used to collect hazardous washwater from the Hi-Bay process area. Washwater was then conveyed to Tanks T-417 and T-418 (SWMUs 5 and 6, respectively) via piping.

This unit was reportedly closed in place by Wacker facility employees in 1989. However, no closure report was available to verify date of removal, sampling, contamination or further actions pending (if any). Since the facility representatives present during the VSI reportedly have no knowledge of previous operations, no further information concerning this unit is available.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: The sump was used to collect washwater containing hazardous constituents from Hi-Bay process area. No major spills or leaks have been reported. Since this unit is no longer in operation and the facility representatives present during the VSI reportedly have no knowledge of previous operations, no further information concerning this unit is available.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:

High	**( )**
Moderate	**(X)**
Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure requirements release potential for this unit is moderate.

SWMU 9 - RTV Sump

Photograph No(s).: Previously Removed; No subject available for this category.

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as being 1979 to 1989.

Location: The location of this unit was in the southwest corner of the manufacturing building, within the RTV Area.

Physical Description: The RTV sump consisted of a carbon steel-constructed, 1,500-gallon underground sump. This sump received washwater generated in the RTV process area. Washwater was then conveyed to former Tank T-419 (SWMU 7) via piping.

This unit was reportedly closed in place by Wacker facility employees in 1989. However, no closure report was available to verify date of removal, sampling, contamination or further actions pending (if any).

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: The sump was used to collect washwater containing hazardous constituents from the RTV process area. No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**(X)**
	Low	**( )**

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, closure documentation indicating the unit met necessary closure requirements was not available. Therefore, release potential for this unit is moderate.

SWMU 10 - Tank T-126A

Photograph No(s).: No Photo (See Conclusion for explanation).

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as 1980.

Location: This unit is located in the southeast plant area, immediately north of the Equalization Pond (SWMU 15) and southwest of the Hi-Bay area building.

Physical Description: Tank T-126A is a 400,000-gallon vertical above ground storage tank, utilized for the storage of washwater generated from the RTV, Hi-Bay and Polymer production processes. Washwater is conveyed to this tank via piping which directly connects the above process units to the tank. In addition, this unit receives non-contact cooling water generated in the Polymer and Hi-Bay process areas. This unit operates in conjunction with Tank T-126B (SWMU 11); both tanks receive RTV and Hi-Bay process washwater. Washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). There are no containments are dikes around this tank.

Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Wastes Managed: T-126A has been used to store washwater from the RTV, Hi-Bay and Polymer production processes. Washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA. Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**(X)**
	Low	**( )**

Conclusions: A visual inspection was not conducted at this SWMU. At the time of the VSI, Wacker staff misinformed TechLaw field personnel as to the presence of Tank T-126A; the confusion occurred from the changing of an identification numbering system of the tanks at the facility. The current identification for Tank T-126A is TK006102. Since this unit was not located during the VSI, an evaluation of current conditions was not possible. Therefore, release potential is moderate.

SWMU 11 - Tank T-126B

Photograph No(s).: No Photo (See Conclusion for explanation).

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1980 to present date.

Location: This unit is located in the southeast portion of the Wacker facility, immediately northwest of Tank T-126A (SWMU 10) and southwest of the Hi-Bay Area Building.

Physical Description: Tank T-126B is a 400,000 gallon vertical above ground storage tank, utilized for the storage of washwater. Washwater is conveyed to this tank via piping which directly connects the process units to the tank. In addition, this unit receives non-contact cooling water generated in the Polymer and Hi-Bay process areas. This unit operates in conjunction with Tank T-126A (SWMU 10); both tanks receive RTV and Hi-Bay process washwater. Washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). There are no containments are dikes around this tank.

Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Wastes Managed: Tank T-126B has been used to store washwater from the RTV, Hi-Bay and Polymer production processes. No major spills or leaks have been reported.

History of Releases: None identified during the PA. Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**(X)**
	Low	**( )**

Conclusions: A visual inspection was not conducted at this SWMU. At the time of the VSI, Wacker staff misinformed TechLaw field personnel as to the presence of Tank T-126B; the confusion occurred from the changing of identification numbering system of the tanks at the facility. The current identification for Tank T-126B is TK006101. Since this unit was not located during the VSI, an evaluation of current conditions was not possible. Therefore, release potential is moderate.

SWMU 12 - Tank T-127A

Photograph No(s).: No Photo (See Conclusion for explanation).

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1980 to present date.

Location: This unit is located in the southeast portion of the plant (just north of the Equalization Pond (SWMU 15)) and within the Green Tank Building.

Physical Description: Tank T-127A is a 4,000 gallon American Petroleum Institute (API) tank, utilized for the storage of washwater generated by the RTV, Hi-Bay and Polymer production processes and non-contact cooling water generated in the Polymer and Hi-Bay process areas. The tank is supported by a five ft deep ring-wall foundations, three inches of clay and six inches of oil-impregnated-sand.

According to facility representatives present during the VSI, this unit was not in operation. Tanks T-127A and T-127B (SWMU 13) are currently used only to support capacity exceedances from Tanks T-126A and B (SWMUs 10 and 11, respectively). In the event of a capacity exceedance, this tank would receive washwater from the Hi-Bay and Polymer production processes.

Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Wastes Managed: Tank T-127A has been used to store washwater from the RTV, Hi-Bay and Polymer production processes. Washwater is conveyed to this tank via piping which directly connects the process units to the tank. In addition, this unit receives non-contact cooling water generated in the Polymer and Hi-Bay process areas. This unit operates only in times of capacity exceedances from Tanks T-127A and T-127B (SWMUs 10 and 11, respectively). During periods of operation, washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA. Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Potential for Past/Present Release:

High	**( )**
Moderate	**(X)**
Low	**( )**

Conclusions: A visual inspection was not conducted at this SWMU. At the time of the VSI, Wacker staff misinformed TechLaw field personnel as to the presence of Tank T-127A; the confusion occurred from the changing of identification numbering system of the tanks at the facility. The current identification of Tank T-127A is TK011102. Since this unit was not located during the VSI, an evaluation of current conditions was not possible. Therefore, release potential is moderate.

SWMU 13 - Tank T-127B

Photograph No(s).: No Photo (See Conclusion for explanation).

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1980 to present date.

Location: This unit is located in the southeast portion of the Wacker facility (just north of the Equalization Pond (SWMU 15) and south of Tank T-127A (SWMU 12)), within the Green Tank Building.

Physical Description: Tank T-127B is a 4,000-gallon fiberglass reinforced plastic (FRP) tank, utilized for the treatment of chemical waste. The tank is supported by a 5-ft deep ring-wall foundation, three inches of clay and six inches of oil-impregnated sand.

According to facility representatives present during the VSI, this unit was not in operation. Tanks T-127A (SWMU 12) and T-127B are currently used only to support capacity exceedances from Tanks T-126A and B (SWMUs 10 and 11, respectively). In the event of a capacity exceedance, this tank would receive washwater from the Hi-Bay and Polymer production processes.

Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Wastes Managed: Tank T-127B has been used to store washwater from the RTV, Hi-Bay and Polymer process areas. Washwater is conveyed to this tank via piping which directly connects the process units to the tank. In addition, this unit receives non-contact cooling water generated in the Polymer and Hi-Bay process areas. This unit operates in conjunction with Tank T-127A (SWMU 12); both tanks have the potential to receive RTV, Hi-Bay and Polymer washwater and/or cooling water in the event of a capacity exceedance in the Tank T-126A (SWMU 10) and Tank T-126B (SWMU 11) system. During periods of operation, washwater is then piped to the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA. Since this unit was not located during the VSI, an evaluation of current conditions was not possible.

Potential for Past/Present Release:

High	**( )**
Moderate	**(X)**
Low	**( )**

Conclusions: A visual inspection was not conducted at this SWMU. At the time of the VSI, Wacker staff misinformed TechLaw field personnel as to the presence of Tank T-127B. The confusion occurred from the changing of the identification numbering system of the tanks at the facility. The current identification of Tank T-127B is TK010102. Since this unit was not located during the VSI, an evaluation of current conditions was not possible. Therefore, release potential is moderate.

SWMU 14 - API Tank and Chemical Sewer System

Photograph No(s).: R1P6 and R1P7

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as beginning in 1965 to present date.

Location: This API Tank is located in the south portion of the Wacker facility, between the SPCC Pond (SWMU 18) and the Equalization Pond (SWMU 15). The Chemical Sewer is present throughout the facility.

Physical Description: The American Petroleum Institute (API) Tank is comprised of two main components; the API Tank and the Chemical Sewer System. The API tank is constructed of concrete and contains an oil-skimmer system. The API Tank has been used to store oil-contaminated water received from Tanks T-126A and B (SWMUs 10 and 11, respectively), and Tanks T-127A and B (SWMUs 12 and 13, respectively). The API Tank has a capacity of 16,000 gallons and is associated with the chemical sewer which manages approximately 45 million gallons per year, which eventually discharges from Outfall 001. No major spills or leaks have been reported.

The chemical sewer portion of the system is comprised of a network of culverts, ditches and underground pipes. Washwaters from various process units are conveyed via piping to the API Tank, while non-contact cooling waters initially pass through the North and South Cooling Water Ponds (SWMUs 16 and 17, respectively).

Wastes Managed: The API Tank manages oil-contaminated washwater from the RTV, Hi-Bay and Polymer processes. Oil produced by the oil-skimmer is removed to a tank truck (recycler-owned) for transport to an approved recycler. Resulting washwater is then discharged from Outfall 001.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no evidence of releases were identified during the PA/VSI, release potential for this unit is low.

SWMU 15 - Equalization Pond

Photograph No(s).: R1P10

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1975 to present date.

Location: The location of this unit is in the south portion of the Wacker facility (just west of the North and South Cooling Ponds (SWMU's 16 and 17, respectively).

Physical Description: The Equalization Pond was formerly a part of the plant chemical sewer system (a component of SWMU 14), though is now used as a reservoir for fire-fighting purposes. The pond likely received washwater from the RTV, Hi-Bay, Polymer and/or HCR processes. Four aerators, located in the northern half of the pond, were likely used as a form of wastewater pretreatment. Following aeration, the washwater was likely handled by the API Tank and Chemical Sewer System (SWMU 14). The Equalization Pond has a capacity of 2.5 million gallons and is now used to store water to be used in the event of a fire. No major spills or leaks have been reported.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: The Equalization Pond was originally used to store washwater from the chemical sewer system, potentially received from the RTV, Hi-Bay, Polymer and/or HCR processes. Currently, it is being used as a water source to be used in the event of a facility fire.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:		
	High	( )
	Moderate	(X)
	Low	( )

Conclusions: Though no evidence of releases was identified during the PA/VSI and the unit is no longer in operation, it is recommended that this unit be further evaluated to determine if releases have occurred. Therefore, the release potential is moderate.

SWMU 16 - North Cooling Water Pond

Photograph No(s).: R1P11

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1965 to present date.

Location: This unit is located in the southeast portion of the Wacker facility (just east of the Equalization Pond (SWMU 15) and north of the South Cooling Water Pond (SWMU 17).

Physical Description: The North Cooling Water Pond is a 120 feet by 65 feet tar paper and asphalt- lined non-contact cooling water pond with a capacity of 750,000 gallons. Cooling water is received from the Polymer process area, allowed to cool, and the then conveyed to the API Tank (component of SWMU 14).

Wastes Managed: This unit manages non-contact cooling water generated by the Polymer process. Following cooling, the water is managed by the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:	**High**	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no evidence of release was identified during the PA/VSI, release potential for this unit is low.

SWMU 17 - South Cooling Water Pond

Photograph No(s).: R1P12

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1965 to present date.

Location: This unit is located in the southeast portion of the Wacker facility (just east of the Equalization Pond (SWMU 15) and south of the North Cooling Water Pond (SWMU 16).

Physical Description: The South Cooling Water Pond is a 120 feet by 65 feet tar paper and asphalt- lined non-contact cooling water pond with a capacity of 750,000 gallons.

Wastes Managed: This unit manages non-contact cooling water generated by the Polymer process. Following cooling, the water is managed by the API Tank and Chemical Sewer System (SWMU 14). No major spills or leaks have been reported.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:		
	High	( )
	Moderate	( )
	Low	(X)

Conclusions: Since no evidence of release was identified during the PA/VSI, release potential for this unit is low.

SWMU 18 - Spill Prevention Control and Countermeasure (SPCC) Pond

Photograph No(s).: R1P4 and R1P5

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1975 to present date.

Location: The location of this unit is in the south of the plant (just west of the API Tank (SWMU 14) and east of RX Bed Burial Area (SWMU 22).

Physical Description: The Spill Prevention Control and Countermeasures (SPCC) Pond measures 100 ft by 250 ft and has a capacity of 750,000 gallons. As of 1989, the unit managed approximately 5 million gallons of stormwater per year. Stormwater collected from the entire facility enters this pond prior to being discharged from Outfall 002.

Wastes Managed: The SPCC Pond is used to retain stormwater run-off throughout the facility, which eventually discharges from Outfall 002.

History of Releases: None identified during the PA/VSI.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified during the PA/VSI, release potential is low.

SWMU 19 - RCRA Hazardous Waste Pad

Photograph No(s).: R2P1 and R2P2

Period of Operation: According to SWMU inventory notes dated May 1989 and observations made during the VSI, the period of operation was noted as being 1980 to present date.

Location: This unit is located immediately east of the Hi-Bay Area Building, near the southeast corner.

Physical Description: The RCRA pad consists of a 20-ft by 30-ft roof-covered, concrete pad. The reinforced concrete pad is 8-inches thick and is surrounded on three sides by a 3-ft reinforced concrete containment wall. The remaining side includes a sloped ramp to allow for access. The maximum storage capacity for the pad is 600, 55-gallon drums.

Wastes Managed: The RCRA pad has been used to store hazardous drummed raw materials (to be eventually used in Wacker's production process) and as a segregated, 90-day holding area for RCRA waste (F002 and F003) generated by the research laboratory. No major spills or leaks have been reported.

History of Releases: None identified in the file materials or during the VSI.

Potential for Past/Present Release:		
	High	**( )**
	Moderate	**( )**
	Low	**(X)**

Conclusions: Since no releases were identified during the PA/VSI, the release potential is low.

SWMU 20 - Evaporation Pond

Photograph No(s).: R1P13 and R1P14

Period of Operation: The period of operation of this unit was noted as being 1968 to 1982. This unit was physically removed from the Wacker facility. Sampling and the removal of contaminated soil has occurred at this unit; however, no closure report was available during the PA/VSI to verify date of removal, or further actions pending (if any).

Location: This unit was located in the southeast corner of the Wacker property, immediately southwest of Tank T-126A (SWMU 10) and north of the North Cooling Water Pond (SWMU 16).

Physical Description: The Evaporation Pond consisted of a 100-ft by 250-ft clay-lined pond which stored approximately 30,000 gallons per month of washwater containing methyl chloroform (TCA) and dilute hydrochloric acid. Sampling and the removal of contaminated soil in addition to the installation of a clay cap reportedly occurred at this unit in 1982.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: While the pond was in operation, TCA and hydrochloric acid were a constituents of the production washwaters. The evaporation pond was cleaned and capped in 1982. No closure report was available during the PA/VSI to verify date of this action, or further actions pending (if any).

History of Releases: A release was observed and noted in a letter dated September 16, 1980, involving the leaking of water into the perched groundwater system. Further, a 1979 point source study prepared by the MDNR noted the existence of this unit as an unlined "black pond" which was used by Wacker for disposal of bad batches, floor washings, and reactor vessels washings. The amount reportedly disposed was approximately 30,000 gallons per month, since the beginning of operations at Wacker. TCA was also detected in the pond and in the discharge from the outfall (Outfall 001). The NPDES permit did not, at that time, authorize the discharge of TCA.

Potential for Past/Present Release:		
	High	**(X)**
	Moderate	**( )**
	Low	**( )**

Conclusions: The Evaporation Pond has reportedly undergone closure activities and a clay cap has been installed. Since releases were identified during the PA, the release potential is high. However, since verification of closure approval was not available, the current release potential is

moderate. In addition, due to inclimate weather (approximately thirty inches of snow), the ground surface could not be observed to make an adequate determination as to the physical condition and release potential associated with this unit; however, since remedial activities appear to have been completed and no evidence of additional release were identified, the current release potential is moderate.

SWMU 21 - Drum Burial Area

Photograph No(s).: R1P1 and R1P2

Period of Operation: The period of operation of this unit was noted as being 1972 to 1984. This unit was physically removed from the Wacker facility. In 1984, formal closure of this unit was authorized by MDNR. Sampling and the removal of contaminated soil occurred at the time of closure. No further actions are pending.

Location: This unit was located in the southwest corner of the Wacker property, immediately north of the RX Bed Burial area (SWMU 22) and west of SPCC Pond (SWMU 18).

Physical Description: The Drum Burial Area was an unlined pit which measured 25 feet by 120 feet. In 1979, MDNR staff learned of an old "disposal area" on the plant site, where Wacker employees had allegedly buried 100 drums. In 1984, Wacker (then SWS Silicones Corporation) uncovered, evaluated, and staged for removal approximately 85, 55-gallon drums of chlorisilane and approximately 140 cubic yards of contaminated soils. The drums were found in various stages of decomposition (highly corroded with only top and bottom rings to some with very little apparent corrosion). Analytical data indicated an observed release and contamination of total chlorinated organics and trimethyl silanol.

The Drum Burial area, at present, is inactive and a 4-acre area associated with both this unit and the RX Bed Burial Area (SWMU 21) has been covered with a clay cap. Previous studies indicate that groundwater was encountered at approximately 33 to 35 feet below grade. Based on groundwater elevation, the groundwater flow direction in the former drum disposal area was determined to be toward the southeast, to the wetland area and River Raisin.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: This unit reportedly managed approximately 85, 55-gallon drums of chlorisilane.

History of Releases: In 1984, during removal activities, releases of total chlorinated organics and trimethyl silanol were identified. Results of a 1999 hydrogeologic investigation (Reference No. 26) indicated the presence of PCE and TCE at concentrations exceeding 15,000 ppm in groundwater.

Potential for Past/Present Release:		
	High	**(X)**
	Moderate	**( )**
	Low	**( )**

Conclusions: Since releases to both soil and groundwater have been identified, release potential is high. While this contamination has been addressed in part, it is recommended that the results of the hydrogeologic investigation be evaluated to determine if additional remedial activities are necessary. In addition, due to inclimate weather (approximately thirty inches of snow), the ground surface could not be observed to make an adequate determination as to the physical condition and release potential associated with this unit; however, since remedial activities appear to have been completed and no evidence of additional release were identified, the current release potential is moderate.

SWMU 22 - RX Bed Burial Area

Photograph No(s).: R1P3

Period of Operation: According to SWMU inventory notes dated May 1989, the period of operation was noted as being 1970 to 1978. Sampling and the removal of contaminated soil has occurred at this unit. However, no closure report was available during the PA/VSI to verify date of sampling, the extent of contamination and further actions pending (if any).

Location: This unit was located in the southwestern corner of the Wacker property, immediately south of the Drum Burial (SWMU 21) and west of the SPCC Pond (SWMU 18)

Physical Description: The Reactor (RX) Bed Burial Area measured 200 ft by 300 ft and is associated with the 4-acre clay cap which also covers the Drum Burial Area (SWMU 21). Releases to soil of total chlorinated organics and trimethyl silanol have been identified.

Since this unit is no longer in operation and facility representatives present during the VSI have only a limited knowledge of previous operations, no further information concerning this unit is available.

Wastes Managed: This unit reportedly received approximately 5,100 tons of non-hazardous lime sludge and spent reactor dumpings which appears to have been applied directly to the ground surface.

History of Releases: The X Bed Burial is associated with the 4-acre clay cap which also covers the Drum Burial Area (SWMU 21). Analytical data indicated an observed release of total chlorinated organics and trimethyl silanol.

Potential for Past/Present Release:		
	High	**(X)**
	Moderate	**( )**
	Low	**( )**

Conclusions: Releases to soil of total chlorinated organics and trimethyl silanol have been identified. The area, at present is inactive and covered with a clay cap. Due to inclimate weather (approximately thirty inches of snow), the ground surface could not be observed to make an adequate determination as to the physical condition and release potential associated with this unit; however, since remedial activities appear to have been completed and no evidence of additional release were identified, the current release potential is moderate.

IV. AREAS OF CONCERN

There were no Areas of Concern (AOCs) identified during the PA and VSI at the Wacker Silicones Corporation facility.

VI. REFERENCES

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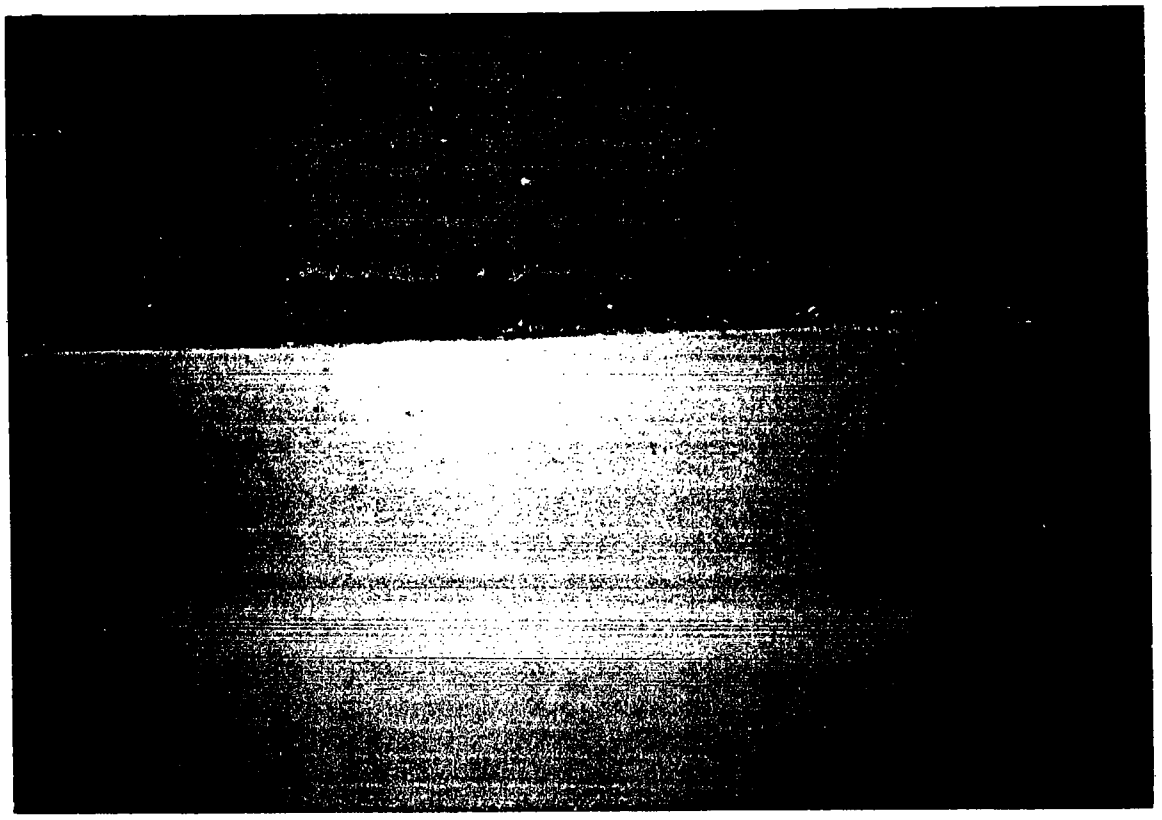
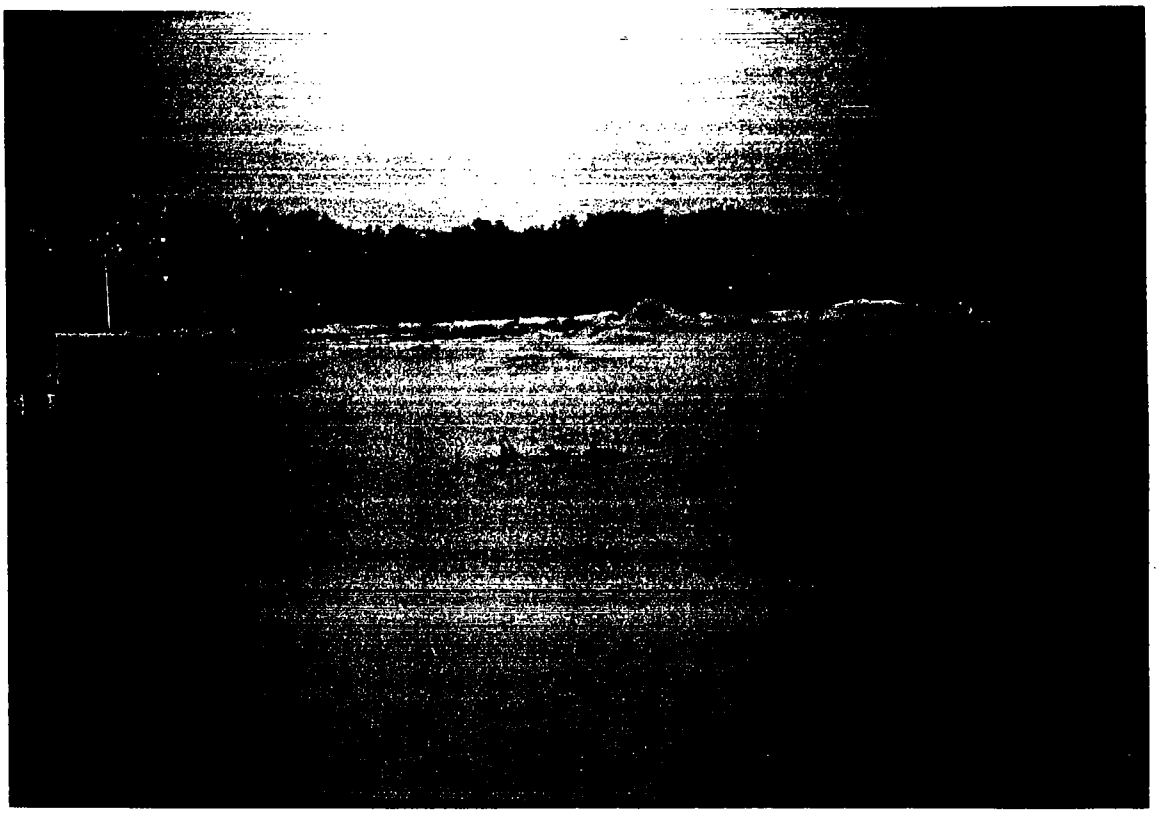


Photograph No.: R1P1
Date: 12/19/00

Time: 1043
Direction: South

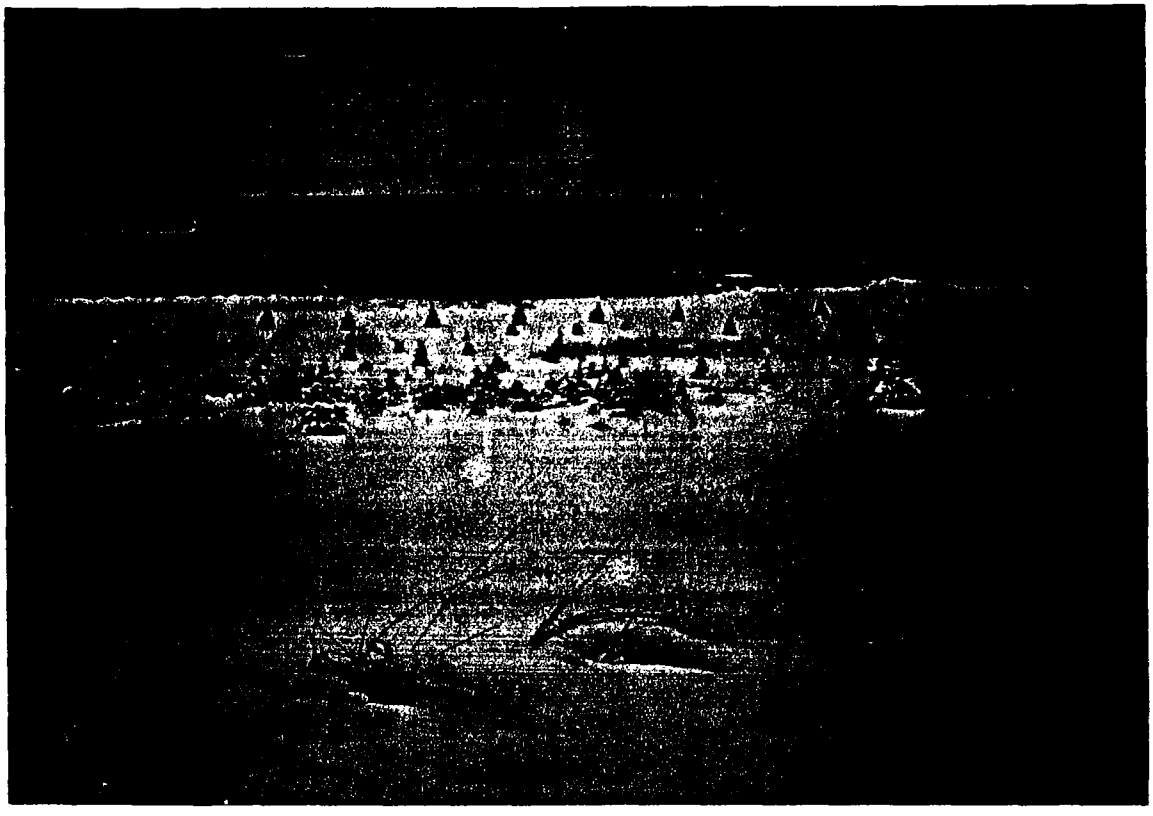
Description: View of the Drum Burial (SWMU 21).



Photograph No.: R1P2
Date: 12/19/00

Time: 1043
Direction: South

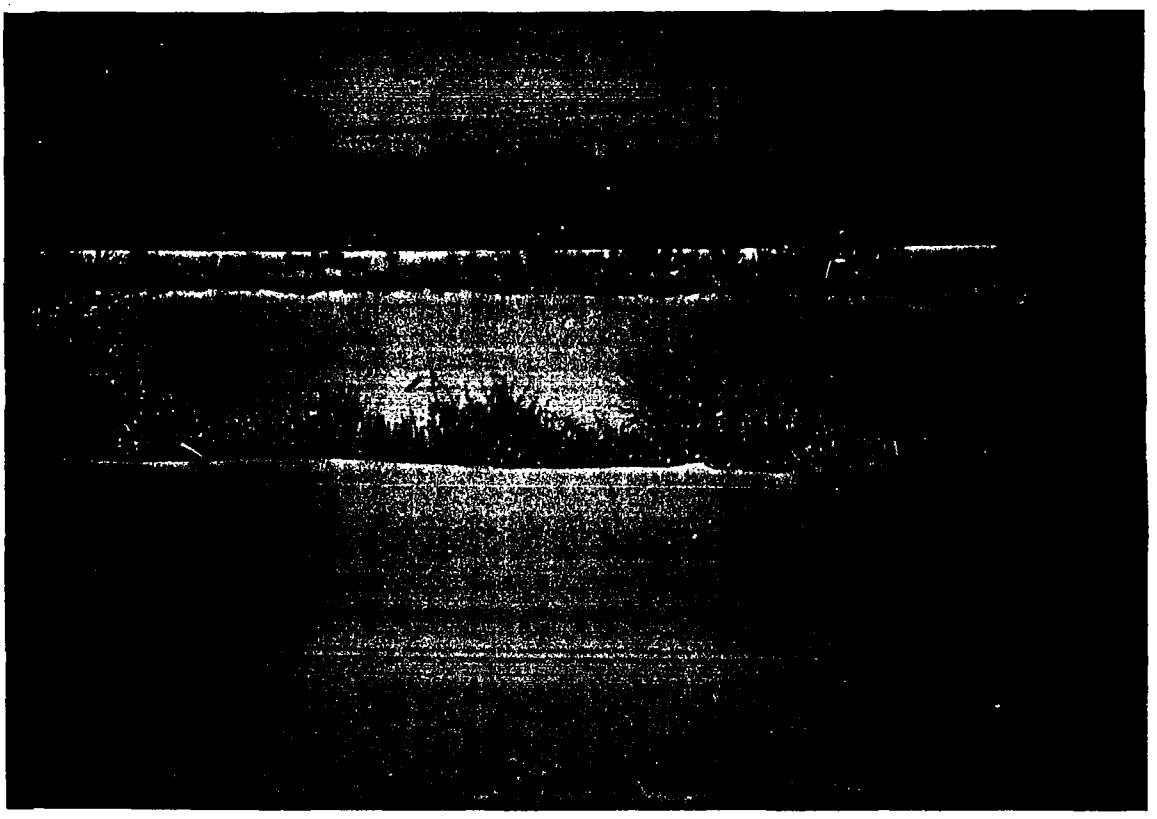
Description: Additional view of the Drum Burial (SWMU 21).



Photograph No.: R1P3
Date: 12/19/00

Time: 1050
Direction: North

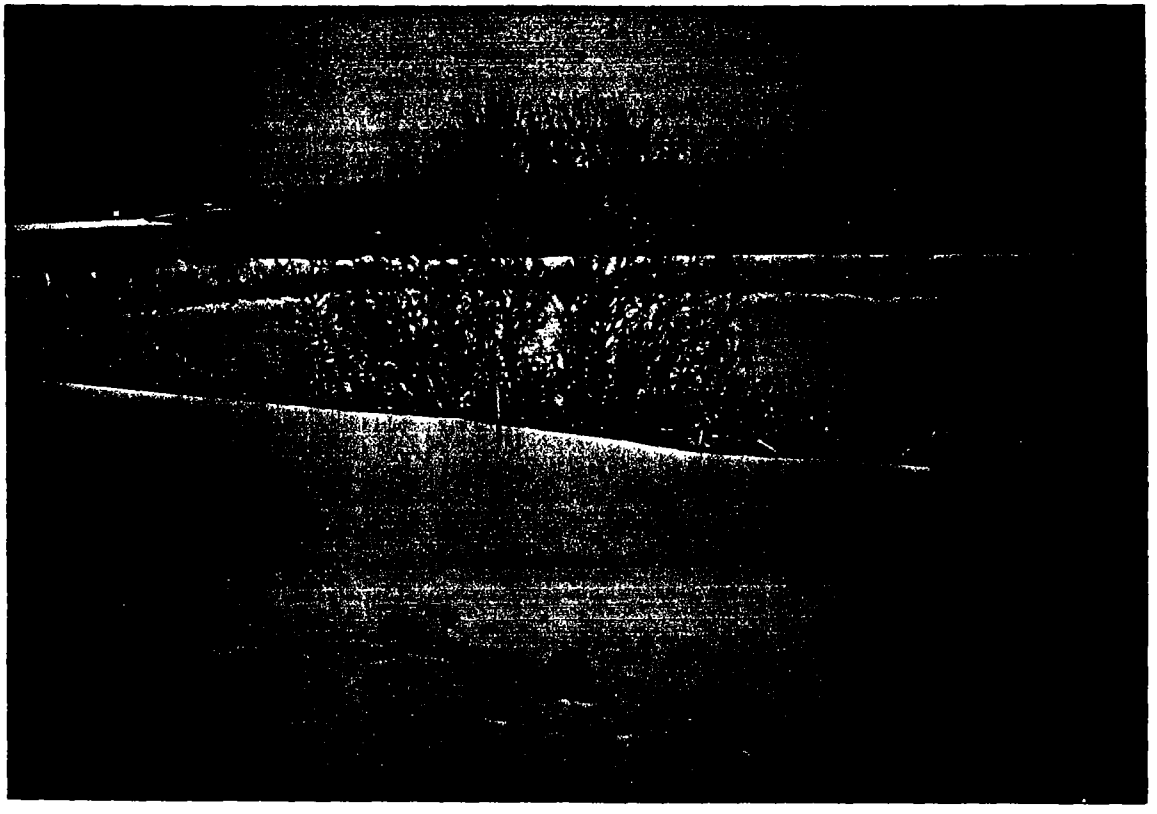
Description: View of the RX Bed Burial Area (SWMU 22).



Photograph No.: R1P4
Date: 12/19/00

Time: 1055
Direction: South

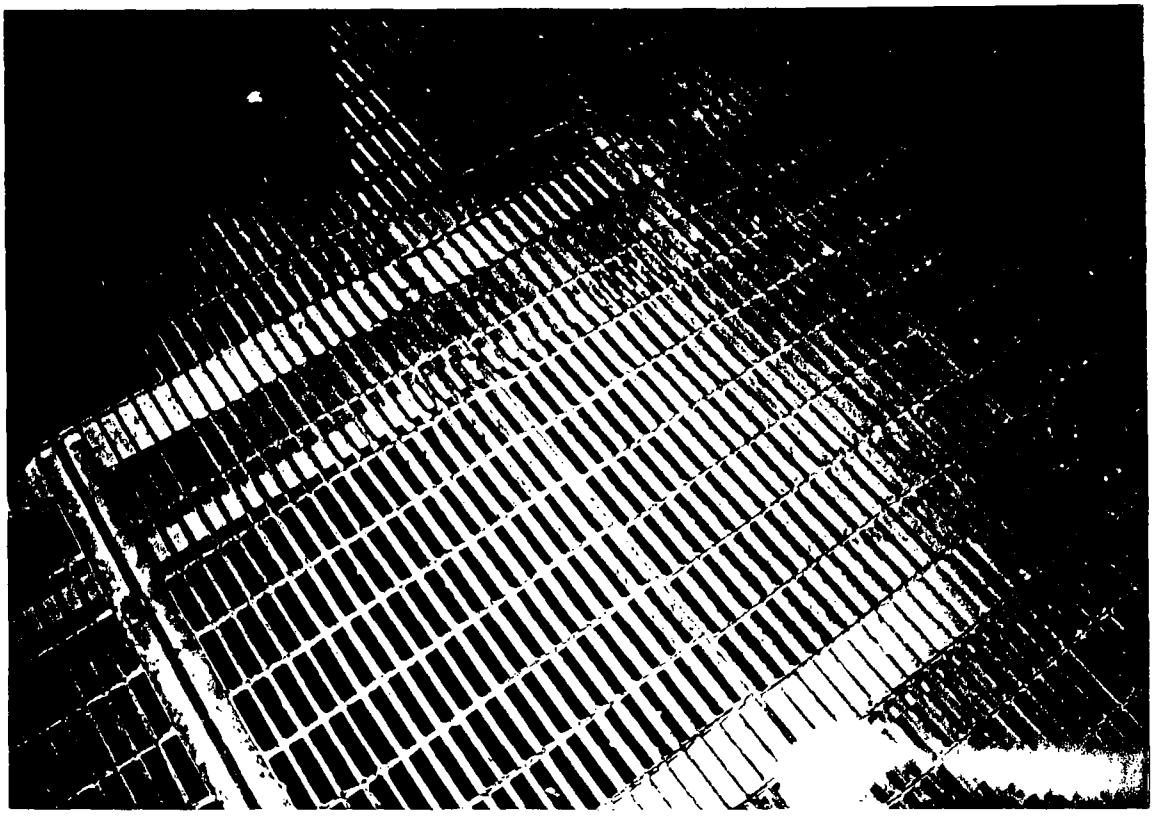
Description: View of the Spill Prevention Control and Countermeasure Pond (SWMU 18).



Photograph No.: R1P5
Date: 12/19/00

Time: 1055
Direction: South

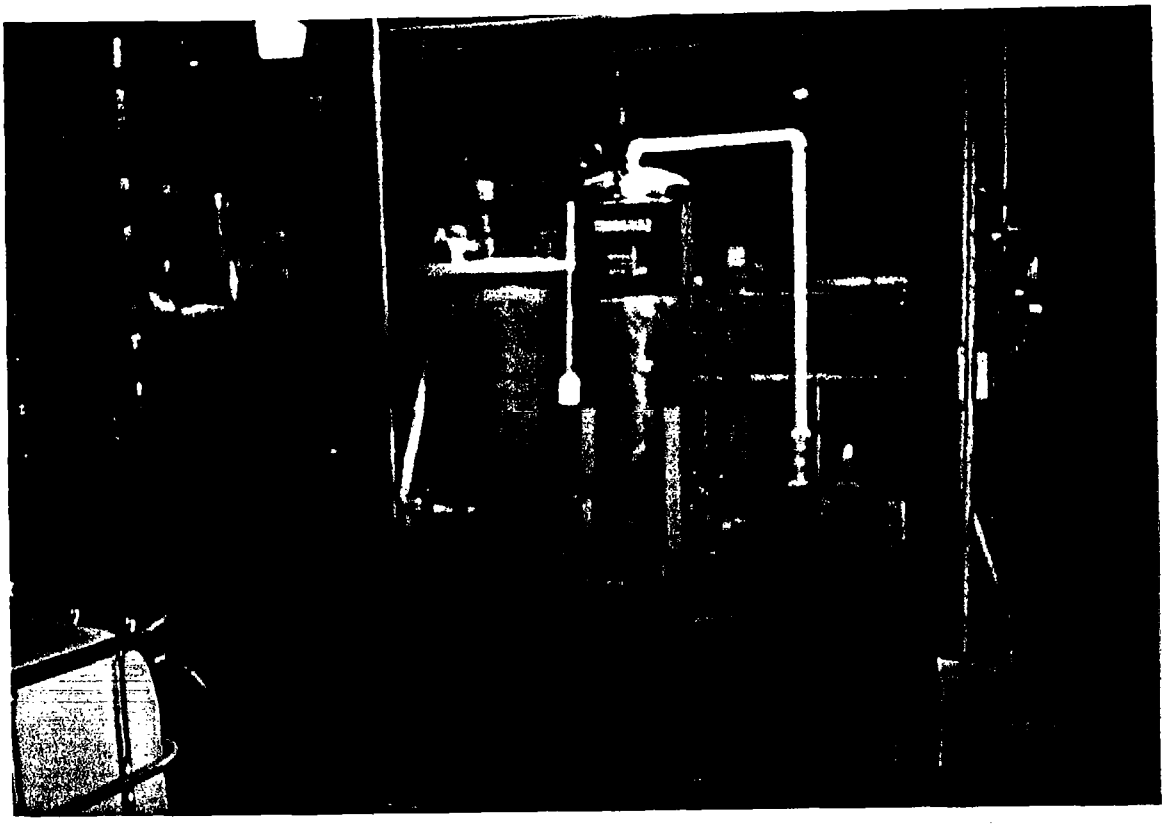
Description: Additional view of the Spill Prevention Control and Countermeasure Pond (SWMU 18).



Photograph No.: R1P6
Date: 12-19-00

Time: 1050
Direction: Indoors

Description: View of the API Tank and Chemical Sewer System (SWMU 14).



Photograph No.: R1P7
Date: 12-19-00

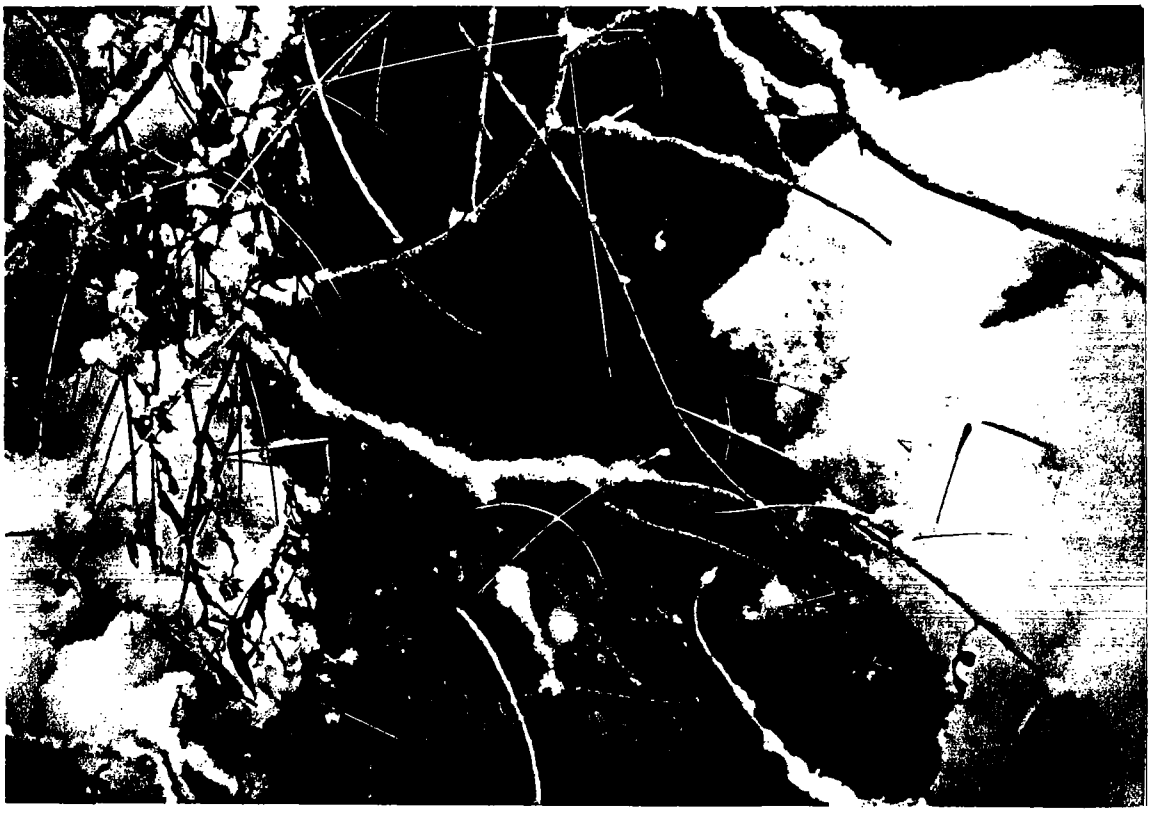
Time: 1050
Direction: Indoors

Description: Additional view of the API Tank and Chemical Sewer System (SWMU 14).

Photograph No.: R1P8
Date: 12/19/00

Time: 1117
Direction: Northwest

Description: View of Outfall 001.



Photograph No.: R1P9
Date: 12/19/00

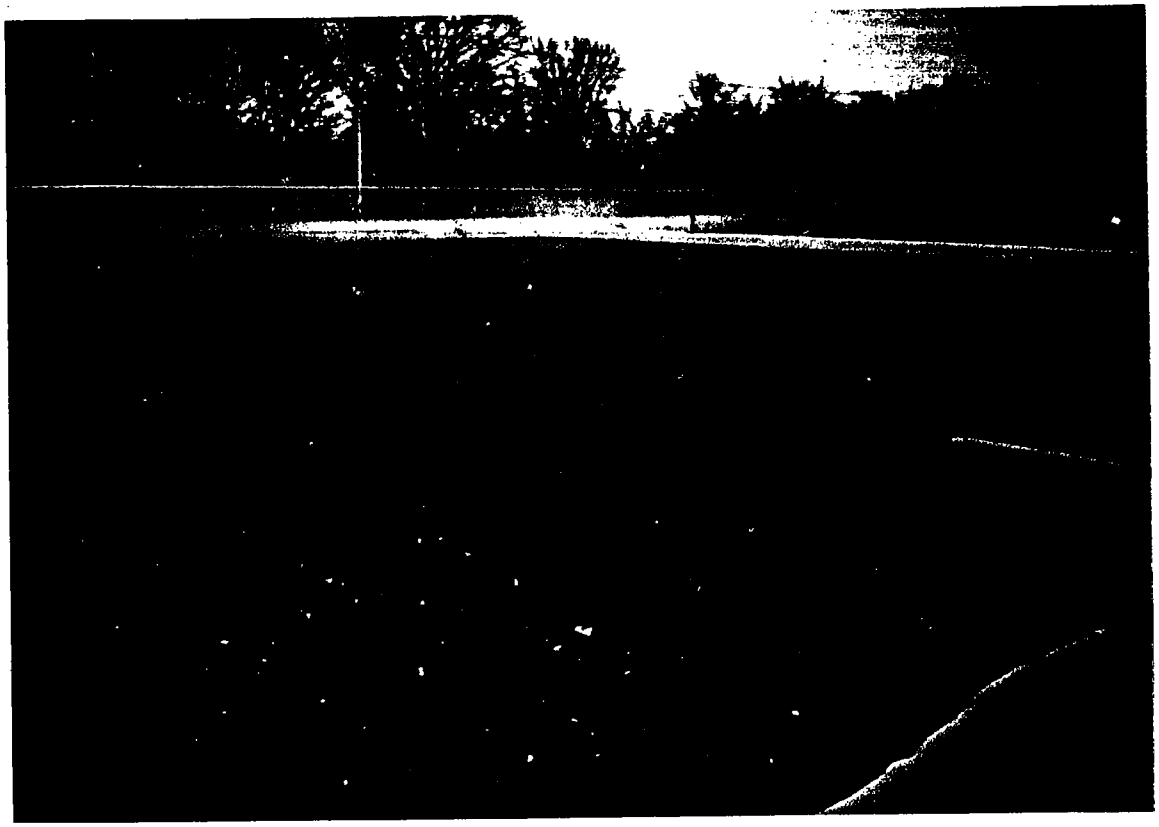
Time: 1117
Direction: Northwest

Description: Additional view of Outfall 001.

Photograph No.: R1P10
Date: 12/19/00

Time: 1127
Direction: Southwest

Description: View of the Equalization Pond (SWMU 15).



Photograph No.: R1P11
Date: 12/19/00

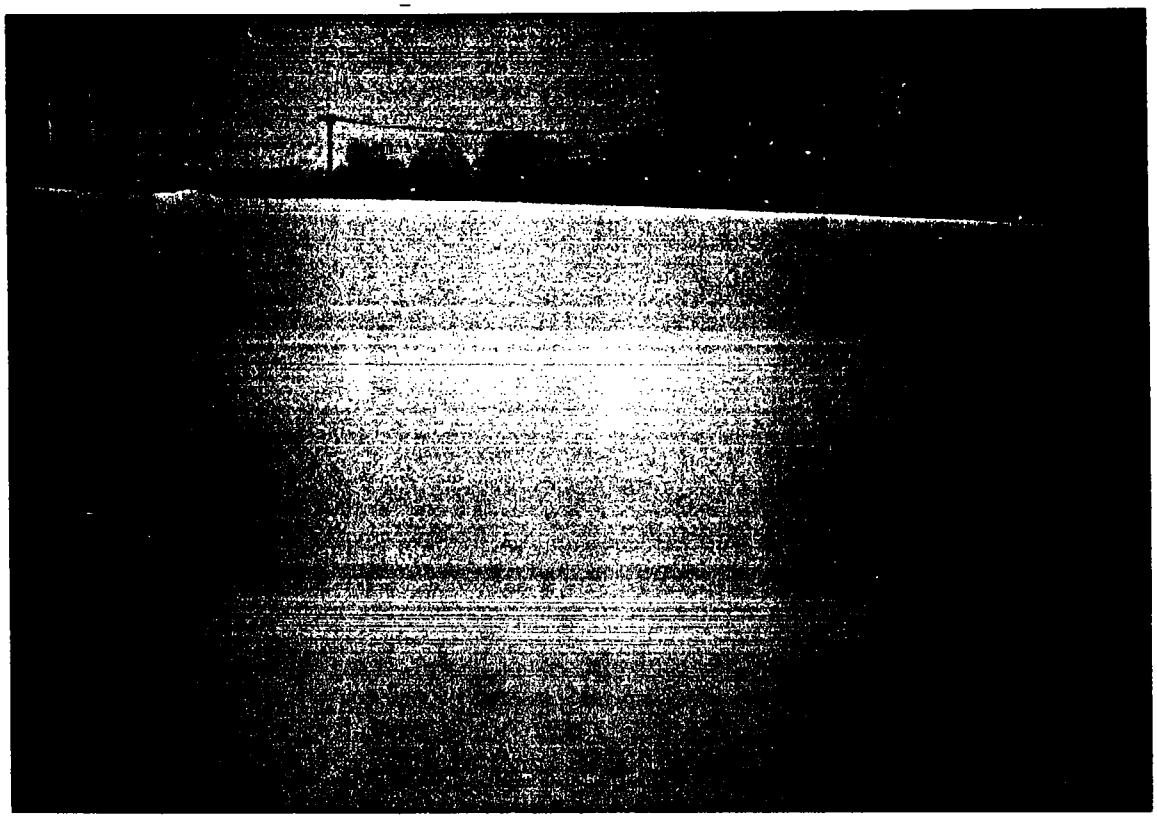
Time: 1133
Direction: Southwest

Description: View of the North Cooling Water Pond (SWMU 16).

Photograph No.: R1P12
Date: 12/19/00

Time: 1133
Direction: South

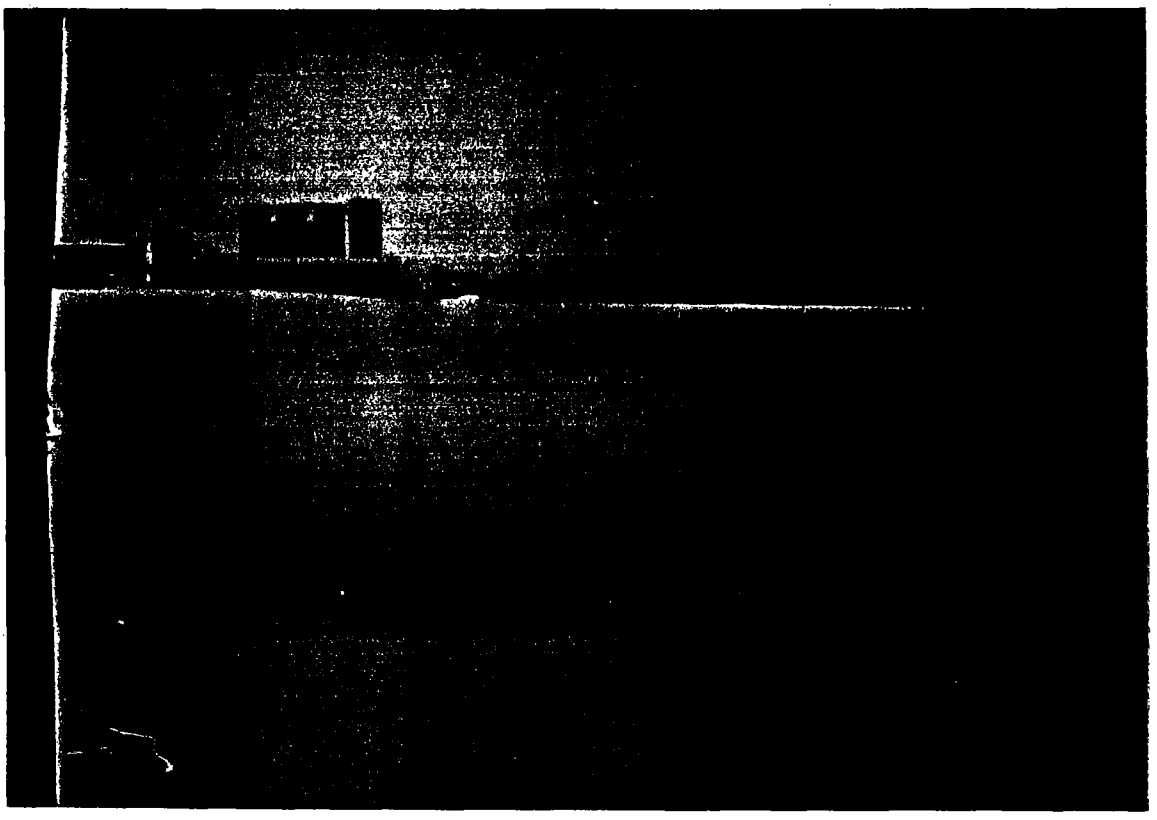
Description: View of the South Cooling Water Pond (SWMU 17).



Photograph No.: R1P13
Date: 12/19/00

Time: 1135
Direction: Northeast

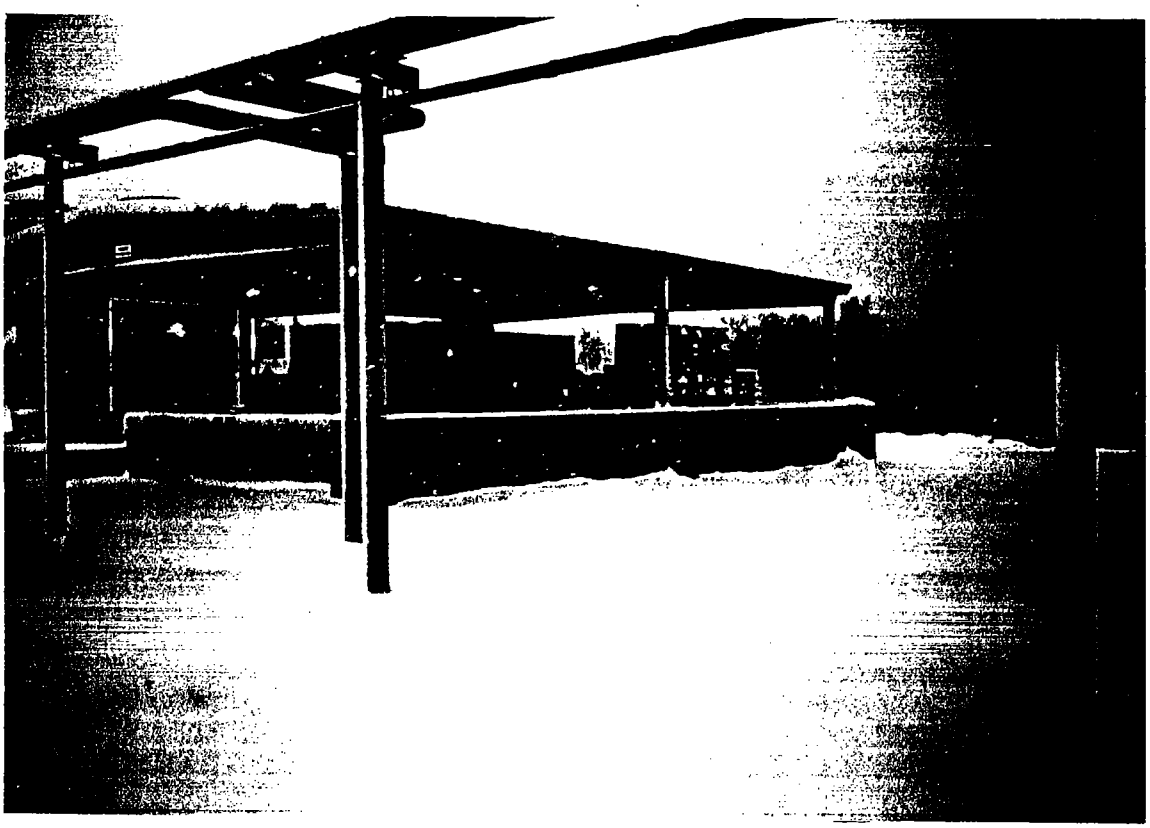
Description: View of the Evaporation Pond (SWMU 20).



Photograph No.: R1P14
Date: 12/19/00

Time: 1135
Direction: Northeast

Description: Additional view of the Evaporation Pond (SWMU 20).



Photograph No.: R2P1
Date:12/19/00

Time: 1043
Direction: Southwest

Description: View of the RCRA Hazardous Waste Pad (SWMU 19).

Photograph No.: R2P2
Date:12/19/00

Time: 1043
Direction: Southwest

Description: Additional view of the RCRA Hazardous Waste Pad (SWMU 19).

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"Rite in the Rain" - A unique All-Weather Writing paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather.

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"Rite in the Rain" - All-Weather writing papers are also available in a wide selection of rolls and sheets for printing and photocopying.

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J. L. DARLING CORPORATION
Tacoma, WA 98424-1017 USA
(253) 922-5000 FAX (253) 922-5300
www.riteintherain.com

6 32281 39311 5

"Rite in the Rain"®

ALL-WEATHER WRITING PAPER

HORIZONTAL LINE

All-Weather Spiral
No. 393

Wacker Silicones Corp.
Adrian, MI
Ø3Ø05.ØØ3.ØØ4.31.Ø4
LOG BOOK

4 5/8" x 7" - 64 Pages

Book 1 of 2

12-14-00 Tuesday

To fulfill the requirements of the PA/VSI, TechLaw divided the activities into three phases. The 1st which included conducting a review of available files and ancillary information provided by Region 5 EPA and the Michigan Department of Natural Resources (MDNR) evaluated known or suspected migration pathways of contaminants detected at the site; and identified Solid Waste Management Units (SWMUs) and Area of Concern (AOCs). It should be noted that available file information did not include Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Preliminary Assessment or Site Inspection reports. Phase II consisted of the conducting of the VSI. The goals of the VSI include the following:

1) Survey the site for hydrologic, geologic & surficial features;
2) Identify, locate, & Observe SWMUs & AOCs; and,
3) Review site information w/

12-19-00

facility rep for clarification.

TechLaw mobilized to the Wacker facility on December 19, 2000. Field personnel consisted of Matt Lary and Keith Slider. Keith Slider was designated as the Project Manager. The weather is as follows: Partly Cloudy w/ chances of full sun by noon, -20° w/ approx 30 inches of snow (possible chances for 3-5 inches in late afternoon).

Activities for today will consist of meeting the goals of the PA/VSI previously mentioned. The following is a list of 23 SWMUs and 2 AOCs that will be observed and identified as a part of the VSI:

12-19-00

(6) 12-19-00 Tuesday

AOC Observation

#	Identification
1	Evap. + Settling Pond
2	Old Prison Burial Area

Intentionally Left Blank

12-19-00

12-19-00 Tuesday (7)

AOC Observation

#	Observation
1	Not Visible; due to snow.
2	No visible leachate, Indication of vegetation

Intentionally Left Blank

12-19-00

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All-Weather Spiral
No. 393

Wacker Silicones Corp.
Adrian, MI
03005.005.004.3$.04
Photographic Logbook
Book 2 of 2

4 5/8" x 7" - 64 Pages

Frame #	Date	Time	Photographer	Direction	Subject
Roll 1 Pic 1	12/19/00	10:41am	M. LARY	SW	OLD DRUM SITE
" Pic 2	"	"	"	S	" " MONITORING WELL
" Pic 3	"	"	"	SE	" "
Pic 4	"	10:[illegible]	"	S	BIRD HOUSES
Pic 5	"	[illegible]	"	N	TREE FARM
Pic 6	"	10:[illegible]	"	S	PIPP POND
Pic 7	"	"	"	SE	" "
Pic 8	"	10:[illegible]	"	INDOORS	API TANK LIQ SAMPLE
Pic 9	"	"	"	"	" " "
Pic 10	"	"	"	"	" "
Pic 11	"	"	"	"	" FLOTATION TANK
Pic 12	"	"	"	"	" DRUM SEPERATOR
Pic 13	"	"	"	"	LEFT/SOLIDS INPUT - R/CLEAN H_2O
Pic 14	"	10:[illegible]	"	"	SAND FILTER
Pic 15	"	"	"	"	UV
Pic 16	"	"	"	"	CLEAN EFFLUENT
Pic 17	"	"	"	"	COMPOSITE SAMPLER
Pic 18	"	"	"	"	MONITORS (pH, FLOW)
Pic 19	"	11:17a	"	NW	TREATED PLANT OUTFALL #1 (See Above)
Pic 20	"	"	"	"	FLOODED STORM HOUSE; LOOK AT " RUST COLOR FROM OUTFALL
Pic 21	"	11:21a	"	SW	STILLING POND FROM RIVER INTAKE
Pic 22	"	11:53a	"	SW	COOLING POND
Pic 23	"	"	"	S	" "
Pic 24	"	11:35a	"	NE	OLD EVAPORATION POND
Pic 25	"	"	"	N	" "

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12-19-00

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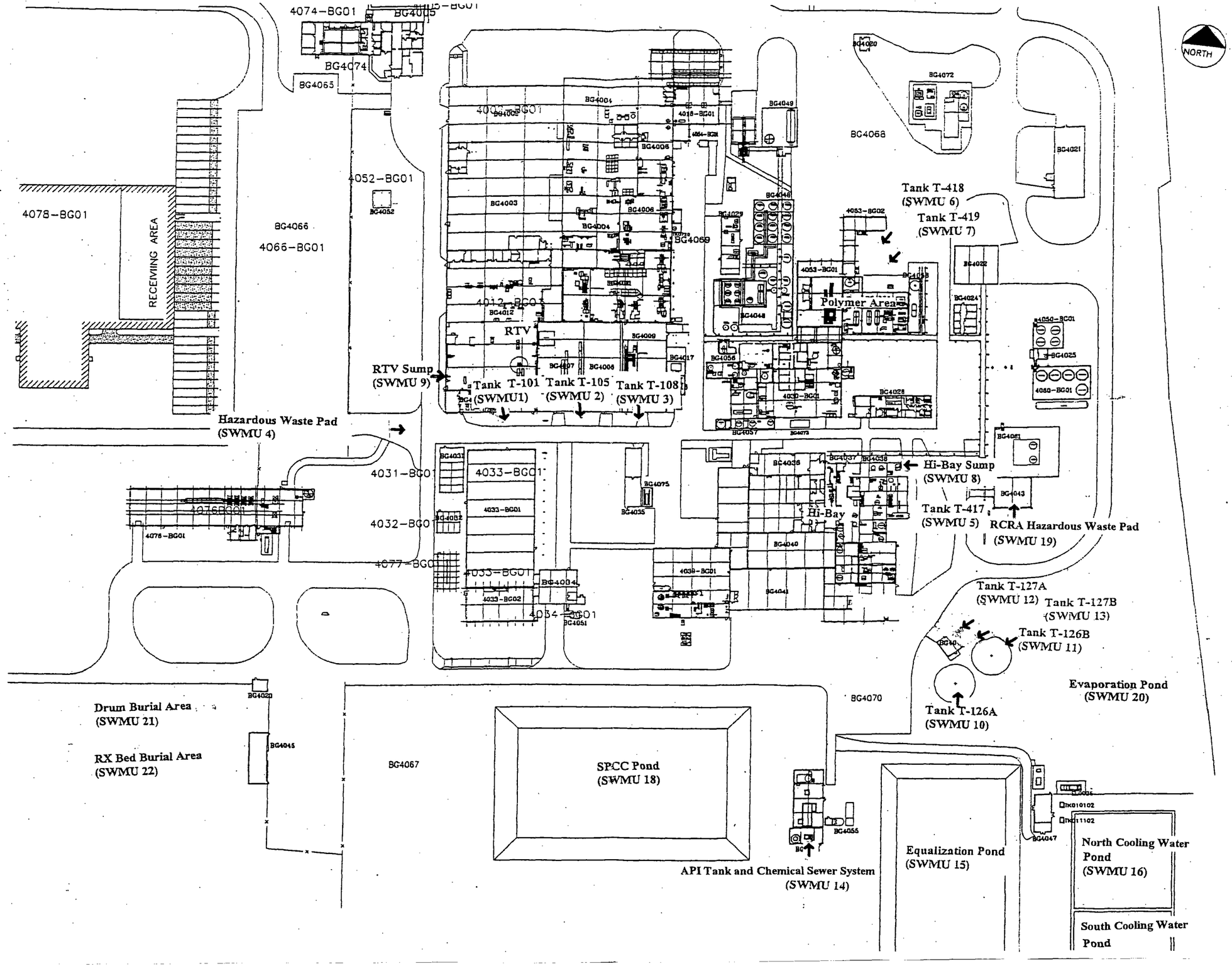
12-19-00

APPENDIX C
Facility Layout and SWMU and AOC Locations


NORTH
4074-BG01
BG4074
BG4065
4052-BG01
BG4052
4078-BG01
RECEIVING AREA
BG4066
4066-BG01
BG4069
RTV
RTV Sump
(SWMU 9)
Tank T-101
(SWMU1)
Tank T-105
(SWMU 2)
Tank T-108
(SWMU 3)
Hazardous Waste Pad
(SWMU 4)
4031-BG01
4033-BG01
4032-BG01
4077-BG01
4034-BG01
BG4051
BG4068
BG4072
BG4021
Tank T-418
(SWMU 6)
Tank T-419
(SWMU 7)
Polymer Area
BG4022
BG4024
BG4025
Hi-Bay Sump
(SWMU 8)
Hi-Bay
Tank T-417
(SWMU 5)
RCRA Hazardous Waste Pad
(SWMU 19)
Tank T-127A
(SWMU 12)
Tank T-127B
(SWMU 13)
Tank T-126B
(SWMU 11)
Evaporation Pond
(SWMU 20)
Tank T-126A
(SWMU 10)
BG4070
Drum Burial Area
(SWMU 21)
RX Bed Burial Area
(SWMU 22)
BG4067
SPCC Pond
(SWMU 18)
API Tank and Chemical Sewer System
(SWMU 14)
Equalization Pond
(SWMU 15)
North Cooling Water
Pond
(SWMU 16)
South Cooling Water
Pond

JUN 2 0 1989

5HR-13

CERTIFIED MAIL P 847 326 240
RETURN RECEIPT REQUESTED

Mr. Gordon Philbrook
Environmental Control Coordination
Wacker Silicones Corporation
3301 Sutton Road
Adrian, Michigan 49221-9397

Dear Mr. Philbrook:

This correspondence is in regard to the Visual Site Inspection (VSI) conducted at the Wacker Silicones facility in Adrian, Michigan, on April 25, 1989. The VSI is a mechanism used to determine the potential need for corrective action at a given facility, and constitutes one of the first steps in the permit modification process.

Based upon the preliminary information obtained during the VSI, the United States Environmental Protection Agency (U.S. EPA) has determined that the Resource Conservation and Recovery Act (RCRA) permit for the Adrian facility does warrant modification. The primary purpose of the permit modification will be the inclusion of corrective action provisions, to be initiated through a RCRA Facility Investigation, as stipulated under the Hazardous and Solid Waste Amendments to RCRA. In addition, a response to the Solid Waste Management Unit informational request made during the VSI has not been recieved. As this information is needed for the VSI report, a timely submittal would be appreciated.

If you have any questions regarding this matter, please contact Mr. David Petrovski at (312) 886-0997.

Sincerely,

ORIGINAL SIGNED BY/
KARL E. BREMER

Karl E. Bremer, Chief
RCRA Permitting Branch

cc: Steve Buda

bcc: R. Traub
D. Petrovski
File

5HR-13

Mr. Gordon Philbrook
Environmental Control Coordination
Wacker Silicones Corporation
3301 Sutton Road
Adrian, Michigan 49221-9397

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If you have any questions regarding this matter, please contact Mr. David Petrovski at (312) 886-0997.

Sincerely,

Karl E. Bremer, Chief
RCRA Permitting Branch

cc: Steve Buda

bcc: R. Traub
D. Petrovski
File

6/16/89

5HR:PETROVSKI:fmd:6/13/89 Computer Disc #1:A:silcon.ltr

RCRA PERMITS	TYP.	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RPB CHIEF	O.R. A.D.D.	W[illegible] D[illegible]
INIT. DATE	6/13/89	6/14/89			6/14/89			6/19/89		

OCT 2 5 1983

5HW-13

Mr. Joseph Calimungi
Director of Manufacturing
SWS Silicones Corp.
Sutton Road
Adrian, Michigan 49221

Dear Mr. Calimungi:

I have been informed by Mr. Allen A. Debus of my staff of his site-inspection of the SWS Silicones manufacturing plant in Adrian, Michigan. This was conducted on October 13, 1983. This inspection will greatly assist the United States Environmental Protection Agency (U.S. EPA) in completing its technical review of your Part B Hazardous Waste Permit Application.

At this time, in order to proceed with the technical review, the U.S. EPA requests that additional information be submitted regarding the inactive surface impoundment located on your facility. Mr. Debus has informed me that the pond was not used after May of 1980, and was closed last year at the request of the Michigan Department of Natural Resources (MDNR). He also explained that the pond was the source of some groundwater contamination some years ago, and that you have properly filed a notice under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). In order to properly access whether the pond should be considered as an additional treatment, storage or disposal facility, the U.S. EPA requests that the following information be provided. Failure to provide this information by December 1, 1983, could warrant permit denial, and/or termination of interim status.

1. A historical outline describing the course of events leading toward the eventual closure of the surface impoundment including all construction and/or retrofitting phases should be provided.

2. A description of wastes which were managed in the surface impoundment during its active life should be provided, including a discussion as to whether the wastes were hazardous as defined in 40 CFR Part 261.

3. A statement as to SWS's intent for closure of the surface impoundment should be provided (i.e., was the impoundment closed with the ultimate intention of removing it later and disposing it elsewhere, or was closure meant to constitute final disposal).

137-14

4. A copy of MDNR's approved closure plan, and a copy of the signed certification of closure should be provided.

Should you have further questions or comments regarding this matter, please contact Mr. Allen A. Debus of my staff at (312) 886-3731.

Sincerely yours,

William H. Miner, Chief
Technical, Permits and Compliance Section

cc: Chad McIntosh, MDNR

	TYPIST	AUTHOR	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	TPS CHIEF	WMB CHIEF	DI...
INITIALS	ap	AD			WEM			
DATE	10/21/83	10/21/83			10/24/83	10/24/83		

5HW-13:AADEBUS:ap:6-3731:10/21/83 (Disk #1)

21 APR 1989

5HR-13

Mr. Gordon Philbrook
Environmental Control Coordinator
Wacker Silcones Corporation
3301 Sutton Road
Adrian, Michigan 49221-9397

Re: RCRA Facility Assessment
Wacker Silcones Corporation
MID 075 400 671

Dear Mr. Philbrook:

As explained in our correspondence of March 3, 1989, your facility has been determined to be environmentally significant, and as such, your RCRA Permit may warrant modification. The RCRA Facility Assessment (RFA) constitutes the first step in the permit modification process. The RFA includes a Preliminary Review (PR) of available file information, a Visual Site Inspection (VSI) of the facility, and if necessary, a Sampling Visit (SV).

As has been discussed in a recent telephone conversation with a member of my staff, a VSI of your facility will be conducted on April 25, 1989. The purpose of the VSI is to fill in data gaps identified in the PR; visually inspect the entire facility for evidence that releases of hazardous waste or hazardous constituents have occurred; and focus recommendations concerning the need for further action at the facility. In addition, photographs will be taken at all Solid Waste Management Units (SWMUs) and any areas of concern.

Should you have further questions regarding this matter, please contact Mr. David Petrovski, at (312) 886-0997.

Sincerely,

ORIGINAL SIGNED BY/
KARL E. BREMER

Karl E. Bremer, Chief
RCRA Permitting Branch

cc: Steve Buda, MDNR

bcc: D.Petrovski
R. Traub
File

5HR-13:PETROVSKI:fmc:6-6161:4-18-89:Computer Disk #1.b

SMD 4/21/89

RCRA PERMITS	TYP.	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RPB Chief	O.R. A.D.D.	WMD DIR
INIT. DATE	SMD 4/19/89	4.19.89			4.19.89			4/21/89		

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

EPA

REGION	SITE NUMBER *(to be assigned by Hq)*

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II *(Preliminary Assessment)*. File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force *(EN-335)*; 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET *(or other identifier)*	
SWS Silicones	3565 Sutton Rd.	
C. CITY	**D. STATE**	**E. ZIP CODE**	**F. COUNTY NAME**
Adrian	Michigan	49221	Lenawee

G. OWNER/OPERATOR *(if known)*

1. NAME	2. TELEPHONE NUMBER
Dr. Leonard Brunet - V.P. & G.M.	

H. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE ☐ 6. UNKNOWN

I. SITE DESCRIPTION

J. HOW IDENTIFIED *(i.e., citizen's complaints, OSHA citations, etc.)*	K. DATE IDENTIFIED *(mo., day, & yr.)*
Anonymous letter to Lenawee County Health Department	11-12-79

L. PRINCIPAL STATE CONTACT

1. NAME	2. TELEPHONE NUMBER
Dennis Dunaske	

II. PRELIMINARY ASSESSMENT *(complete this section last)*

A. APPARENT SERIOUSNESS OF PROBLEM

☐ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION

☐ 1. NO ACTION NEEDED *(no hazard)*

☐ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR: _____
b. WILL BE PERFORMED BY: _____

☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR: _____
b. WILL BE PERFORMED BY: _____

☐ 4. SITE INSPECTION NEEDED *(low priority)*

C. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE *(mo., day, & yr.)*
Phyllis Reed	886-6223	3-1-80

III. SITE INFORMATION

A. SITE STATUS

☐ 1. ACTIVE *(Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)*

☐ 2. INACTIVE *(Those sites which no longer receive wastes.)*

☐ 3. OTHER *(specify)*: _____ *(Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)*

B. IS GENERATOR ON SITE?

☐ 1. NO ☒ 2. YES *(specify generator's four-digit SIC Code)*: 2822

C. AREA OF SITE *(in acres)*	D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES	
	1. LATITUDE *(deg.-min.-sec.)*	2. LONGITUDE *(deg.-min.-sec.)*

E. ARE THERE BUILDINGS ON THE SITE?

☐ 1. NO ☒ 2. YES *(specify)*: Manufacturing plant,

Continue On Reverse

Continued From Front

IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

'X'	A. TRANSPORTER	'X'	B. STORER	'X'	C. TREATER	'X'	D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION		1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY	✓	4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS. TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER *(specify)*:		6. OTHER *(specify)*:		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY		8. OTHER *(specify)*:
					9. OTHER *(specify)*:		

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☐ 1 UNKNOWN ☐ 2 LIQUID ☐ 3. SOLID ☐ 4. SLUDGE ☐ 5. GAS

B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN ☐ 2. CORROSIVE ☐ 3. IGNITABLE ☐ 4 RADIOACTIVE ☐ 5 HIGHLY VOLATILE
☐ 6. TOXIC ☐ 7 REACTIVE ☐ 8. INERT ☐ 9 FLAMMABLE

☐ 10. OTHER *(specify)*: _____

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

2. Estimate the amount *(specify unit of measure)* of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
'X' (1) PAINT, PIGMENTS	'X' (1) OILY WASTES	'X' (1) HALOGENATED SOLVENTS	'X' (1) ACIDS	'X' (1) FLYASH	'X' (1) LABORATORY PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER *(specify)*:	(2) NON-HALOGNTD. SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER *(specify)*:	(3) CAUSTICS	(3) MILLING/ MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMLTG. WASTES	(4) MUNICIPAL
(5) OTHER *(specify)*:			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	(5) OTHER *(specify)*:
			(6) CYANIDE	(6) OTHER *(specify)*:	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER *(specify)*		

Continue On Page 3

Continued From Page 2

V. WASTE RELATED INFORMATION *(continued)*

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE *(place in descending order of hazard)*.

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD *(mark 'X')*	C. ALLEGED INCIDENT *(mark 'X')*	D. DATE OF INCIDENT *(mo., day, yr.)*	E. REMARKS
1. NO HAZARD				
2. HUMAN HEALTH				
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY				
5. CONTAMINATION OF WATER SUPPLY				
6. CONTAMINATION OF FOOD CHAIN				
7. CONTAMINATION OF GROUND WATER				
8. CONTAMINATION OF SURFACE WATER				
9. DAMAGE TO FLORA/FAUNA				
10. FISH KILL				
11. CONTAMINATION OF AIR				
12. NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL				
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
17. SEWER, STORM DRAIN PROBLEMS				
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER *(specify)*:				

Continue On Reverse

Continued From Front

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

☐ 1. NPDES PERMIT ☐ 2. SPCC PLAN ☐ 3. STATE PERMIT *(specify)*: _____

☐ 4. AIR PERMITS ☐ 5. LOCAL PERMIT ☐ 6. RCRA TRANSPORTER

☐ 7. RCRA STORER ☐ 8. RCRA TREATER ☐ 9. RCRA DISPOSER

☐ 10. OTHER *(specify)*: _____

B. IN COMPLIANCE?

☐ 1. YES ☐ 2. NO ☐ 3. UNKNOWN

4. WITH RESPECT TO *(list regulation name & number)*: _____

VIII. PAST REGULATORY ACTIONS

☐ A. NONE ☐ B. YES *(summarize below)*

IX. INSPECTION ACTIVITY *(past or on-going)*

☐ A. NONE ☐ B. YES *(complete items 1,2,3, & 4 below)*

1. TYPE OF ACTIVITY	2 DATE OF PAST ACTION *(mo., day, & yr.)*	3 PERFORMED BY: *(EPA/State)*	4. DESCRIPTION

X. REMEDIAL ACTIVITY *(past or on-going)*

☐ A. NONE ☐ B. YES *(complete items 1, 2, 3, & 4 below)*

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION *(mo., day, & yr.)*	3. PERFORMED BY: *(EPA/State)*	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment *(Section II)* information on the first page of this form.

EPA

POTENTIAL HAZARDOUS WASTE SITE TENTATIVE DISPOSITION

REGION: V | SITE NUMBER: M1000000 990

File this form in the regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (*EN-335*); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET	
SWS Silicones		
C. CITY	**D. STATE**	**E. ZIP CODE**
Adrian	MI	49221

II. TENTATIVE DISPOSITION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK 'X'	ACTION AGENCY: EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED -- NO HAZARD					
B. INVESTIGATIVE ACTION(S) NEEDED *(If yes, complete Section III.)*		X			
C. REMEDIAL ACTION NEEDED *(If yes, complete Section IV.)*					
D. ENFORCEMENT ACTION NEEDED *(If yes, specify in Part E whether the case will be primarily managed by the EPA or the State and what type of enforcement action is anticipated.)*					

E. RATIONALE FOR DISPOSITION

F. INDICATE THE ESTIMATED DATE OF FINAL DISPOSITION *(mo., day, & yr.)*	G. IF A CASE DEVELOPMENT PLAN IS NECESSARY, INDICATE THE ESTIMATED DATE ON WHICH THE PLAN WILL BE DEVELOPED *(mo., day, & yr.)*

H. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE *(mo., day, & yr.)*
Kathleen Hammer	(312) 886-6144	9/18/80

III. INVESTIGATIVE ACTIVITY NEEDED

A. IDENTIFY ADDITIONAL INFORMATION NEEDED TO ACHIEVE A FINAL DISPOSITION.

full field inspection w/ monitoring

B. PROPOSED INVESTIGATIVE ACTIVITY *(Detailed Information)*

1. METHOD FOR OBTAINING NEEDED ADDITIONAL INFO.	2. SCHEDULED DATE OF ACTION *(mo, day, & yr)*	3. TO BE PERFORMED BY *(EPA, Contractor, State, etc.)*	4. ESTIMATED MANHOURS	5. REMARKS
a. TYPE OF SITE INSPECTION (1)				
(2) Inspection	Nov. '80	EPA	unknown	
(3)				
b. TYPE OF MONITORING (1) Groundwater	Nov. '80	"	"	
(2)				
c. TYPE OF SAMPLING (1) lagoons	Nov. '80	"	"	
(2)				

Continue On Reverse

Continued From Fro

III. INVESTIGATIVE ACTIVITIES NEEDED and PART B - PROPOSED INVESTIGATIVE ACTIVITY *(Continued)*

d. TYPE OF LAB ANALYSIS (1)				
(2)				
e. OTHER *(specify)* (1)				
(2)				

C. ELABORATE ON ANY OF THE INFORMATION PROVIDED IN PART B *(on front & above)* AS NEEDED TO IDENTIFY ADDITIONAL INVESTIGATIVE WORK.

D. ESTIMATED MANHOURS BY ACTION AGENCY

1. ACTION AGENCY	2. TOTAL ESTIMATED MANHOURS FOR INVESTIGATIVE ACTIVITIES	1. ACTION AGENCY	2. TOTAL ESTIMATED MANHOURS FOR INVESTIGATIVE ACTIVITIES
a. EPA		b. STATE	
c. EPA CONTRACTOR		d. OTHER *(specify)*	

IV. REMEDIAL ACTIONS

A. SHORT TERM/EMERGENCY STRATEGY *(On Site & Off-Site)*: List all emergency actions needed to bring site under immediate control, e.g., restrict access, provide alternate water supply, etc. See instructions for a list of Key Words for each of the actions to be used in the space below.

1. ACTION	2. EST. START DATE *(mo, day, & yr)*	3. EST. END DATE *(mo, day, & yr)*	4. ACTION AGENCY *(EPA, State, Private Party)*	5. ESTIMATED COST	6. SPECIFY 311 OR OTHER ACTION; INDICATE THE MAGNITUDE OF THE WORK REQUIRED
				$	
				$	
				$	
				$	
				$	
				$	

B. LONG TERM STRATEGY *(On Site & Off-Site)*: List all long term solutions, e.g., excavation, removal, ground water monitoring wells, etc. See instructions for a list of Key Words for each of the actions to be used in the spaces below.

1. ACTION	2. EST. START DATE *(mo, day, & yr)*	3. EST. END DATE *(mo, day, & yr)*	4. ACTION AGENCY *(EPA, State Private Party)*	5. ESTIMATED COST	6. SPECIFY 311 OR OTHER ACTION; INDICATE THE MAGNITUDE OF THE WORK REQUIRED
				$	
				$	
				$	
				$	
				$	
				$	

C. ESTIMATED MANHOURS AND COST BY ACTION AGENCY

...ON ...CY	2. TOTAL EST. MANHOURS FOR REMEDIAL ACTIVITIES	3. TOTAL EST. COST FOR REMEDIAL ACTIVITIES	1. ACTION AGENCY	2. TOTAL EST. MANHOURS FOR REMEDIAL ACTIVITIES	3. TOTAL EST. COST FOR REMEDIAL ACTIVITIES
...A			b. STATE		
...RIVATE			d. ...R *(specify)*		

CERTIFICATION REGARDING POTENTIAL RELEASES FROM SOLID WASTE MANAGEMENT UNITS

FACILITY NAME: WACKER SILICONES CORPORATION

EPA I.D. NUMBER: MID 075 400 671

LOCATION CITY: Adrian

STATE: Michigan

1. Are there any of the following solid waste management units (existing or closed) at your facility? NOTE - DO NOT INCLUDE HAZARDOUS WASTE UNITS CURRENTLY SHOWN IN YOUR PART A APPLICATION

	YES	NO
• Landfill	X	
• Surface Impoundment	X	
• Land Farm		X
• Waste Pile		X
• Incinerator		X
• Storage Tank (Above Ground)	X	
• Storage Tank (Underground)		X
• Container Storage Area	X	
• Injection Wells		X
• Wastewater Treatment Units	X	
• Transfer Stations		X
• Waste Recycling Operations		X
• Waste Treatment, Detoxification		X
• Other 3 Underground sumps	X	

2. If there are "Yes" answers to any of the items in Number 1 above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, please focus on whether or not the wastes would be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volume of wastes disposed of and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions and location at facility. Provide a site plan if available.

Data attached: Table I, Plus questionnaires A, H, O and GA, plus drawing "Water Table Contours, November 23, 1983"

NOTE: Hazardous wastes are those identified in 40 CFR 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.

3. For the units noted in Number 1 above and also those hazardous waste units in your Part A application, please describe for each unit any data available on any prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or may still be occurring.

Please provide the following information

a. Date of release
b. Type of waste released
c. Quantity or volume of waste released
d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)

Monitoring well and hydrogeological data attached for old evaporation pond and old drum burial site. Vents from HW storage tanks reported annually in air pollution reporting form (attached). Annual vents from washwater treating and equalization pond (attached).

4. In regard to the prior or continuing releases described in Number 3 above, please provide (for each unit) any analytical data that may be available which would describe the nature and extent of environmental contamination that exists as a result of such releases. Please focus on concentrations of hazardous wastes or constituents present in contaminated soil or groundwater.

See #3

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the submittal is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (42 U.S.C. 6902 et seq. and 40 CFR 270.11(d))

Gordon C. Philbrook
Administrator,
Environmental Regulations

Typed Name and Title

Gordon C. Philbrook

Signature

May 30, 1989

Date